

DOCUMENT RESUME

ED 212 092

EC 141 162

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TITLE Disturbing, Disordered or Disturbed? Perspectives on the Definition of Problem Behavior in Educational Settings.
INSTITUTION Minnesota Univ., Minneapolis. Dept. of Psychoeducational Studies.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C. Div. of Personnel Preparation.
PUB DATE 82
GRANT G007601871
NOTE 93p.; Proceedings of Conference (Charlottesville, VA, February 22-24, 1979).
AVAILABLE FROM CEC Publication Sales, 1920 Association Dr., Reston, VA 22091 (Publication No. 238, \$8.50).
EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Administration; *Autism; Behavior Problems; Classification; Clinical Diagnosis; *Definitions; *Emotional Disturbances; History; Literature Reviews

ABSTRACT

The book contains five papers presented at a 1979 topical conference on the definition of emotional disturbance and behavioral disorders in educational settings. The first paper, by F. Wood, is titled "Defining Disturbing, Disordered, and Disturbed Behavior." Topics covered include ambivalence about defining deviant behavior by special educators, elements of good descriptions of disordered/disturbed behavior, and a critical review of some illustrative general definitions. The second paper, "Administrative Definitions of Behavior Disorders--Status and Directions," by D. Cullinan and M. Epstein, considers types of definition, a survey of state definitions, problems with state definitions, problems with abolishing categorical state definitions, and recommended directions. Next, F. Wood and K. C. Lakin, in "Defining Emotionally Disturbed/Behaviorally Disordered Populations for Research Purposes," review the research literature and analyze primary labels in the reports as well as operational definitions (determined either by setting/program, nomination/referral, rating scale, and clinical diagnosis). J. Kauffman provides "An Historical Perspective on Disordered Behavior and an Alternative Conceptualization of Exceptionality" with sections on the historic authority of the medical field, adulthood vs. childhood disorders, distinctions among categories and labels, and early twentieth century descriptions. He offers an alternative conceptualization of exceptionality which evaluates deviance in terms of the interrelationship among individual behavior, the environment, and cognition. The final paper is titled "Autism--Symptoms in Search of a Syndrome" and is by R. Neel. After a review of the history of the autism label and the research to date, the author concludes that it is possible to identify the autistic syndrome but that there is no educational reason to separate an autistic child from other handicapped children. (DB)

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Perspectives on the Definition of
Problem Behavior in Educational Settings

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**Publications of the Advanced Institute
for Trainers of Teachers for
Seriously Emotionally Disturbed Children and Youth**

- Wood, F. H., Zabel, R. H., & Uhlemann, D. C. *Problem behavior in the schools: A bibliography*. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1977; revised 1978.
- Wood, F. H. (Ed.). *A conference on the socialization process*. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1977. (Abstracts)
- Wood, F. H. (Ed.). *Proceedings of a conference on preparing teachers to foster personal growth in emotionally disturbed students*. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1977.
- Wood, F. H. (Ed.). *Proceedings of a conference on preparing teachers for severely emotionally disturbed children with autistic characteristics*. Department of Psychoeducational Studies, University of Minnesota, 1977.
- Wood, F. H., & Lakin, K. C. (Eds.). *Punishment and aversive stimulation in special education: Legal, theoretical and practical issues in their use with emotionally disturbed children and youth*. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1978.
- Nelson, C. Michael (Ed.). *Field-based teacher training: Applications in special education*. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1978.
- Wood, F. H., & Lakin, K. C. (Eds.). *Disturbing, disordered or disturbed? Perspectives on the definition of problem behavior in educational settings*. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1979.

DISTURBING, DISORDERED OR DISTURBED?

Perspectives on the Definition
of Problem Behavior in
Educational Settings

Frank H. Wood and
K. Charlie Lakin, Editors

A publication of the Advanced Institute for Trainers of Teachers for Seriously Emotionally Disturbed Children and Youth, Department of Psychoeducational Studies, University of Minnesota, under a grant from the Division of Personnel Preparation, Bureau of Education for the Handicapped, United States Office of Education, Department of Health, Education and Welfare.

The conference reported herein was conducted pursuant to Grant No. G007601871 from the Division of Personnel Preparation, Bureau of Education for the Handicapped, United States Office of Education. The opinions expressed herein are those of the authors and do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

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Reprinted by The Council for Exceptional Children, 1982.

Copies are available from CEC Publications Sales,
1920 Association Drive, Reston, Virginia 22091.

Preface

The Advanced Institute for Trainers of Teachers for Seriously Emotionally Disturbed Children and Youth was developed through a grant from the Bureau of Education for the Handicapped to keep those responsible for training teachers for the emotionally disturbed children abreast of current information on important topics in the field. As part of this task in the spring of 1977 over five hundred teacher trainers and state education agency personnel were asked to indicate those topics or issues which they considered of current importance. The responses received to this survey indicated that a sizable number of persons on the Advanced Institute mailing list felt that the issues revolving around how emotional disturbance and behavioral disorders are defined in educational settings were in need of discussion. To respond to this perceived need the topical conference reported in this volume was organized.

The conference was held in Charlottesville, Virginia, on February 22-24, 1979. The authors of the papers printed in the volume would like to thank the many people who attended the conference, helping shape the final contents of these papers through their questions and comments.

Special thanks must be given to Rebecca Kneidler of the Department of Special Education, University of Virginia for her help in coordinating the conference. The staff of the Advanced Institute is also grateful to Herman Saettler and Gweneth Blacklock-Brown of the Division of Personnel Preparation, Bureau of Education for the Handicapped (USOE), for the assistance and encouragement they have provided in the effort to disseminate materials which will contribute to a better education for children and youth with serious emotional disturbance and behavioral disorders. Finally Julie Lockway must be thanked for her usual excellent work in preparing these manuscripts for press.

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INTRODUCTION

The Advanced Institute for Trainers of Teachers for Seriously Emotionally Disturbed Children and Youth has sponsored a series of conferences on topics of interest to teacher trainers during the past three years. Through the dissemination of papers presented at the conferences, a larger audience can share in the stimulation of those meetings. The present set of papers deals with an issue many trainers have repeatedly told me should be "the first to be settled": Precisely whom are we talking about when we refer to a group of students as "emotionally disturbed" or "behaviorally disordered"?

Like the question of whether or not the use of aversive stimulation is ever justifiable, this one cannot be answered directly. Anyone who has reviewed past efforts to develop an appropriate and useful definition knows that existing definitions are all flawed in one way or another. Those in books reflect the biases of their authors. Those in statute and regulation are defended as "the best we could find — and we had to have something." Recognition that such a state of uncertainty exists in spite of the diligent efforts of scores of would-be definers supports a feeling that only the Humpty Dumpty among us would dare to assert that ours is THE DEFINITION.

"When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean — neither more nor less."

"The questions is," said Alice, "whether you *can* make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master — that's all."

Lewis Carroll, *Through the looking glass*.
Chapter VI.

Wise Alice knew that something more than personal or group fiat is necessary to establish a useful definition, yet there is something attractive to all of us in Humpty's vigorous approach to resolving the problem. Perhaps it would be most accurate to say that while the authors of these papers are willing to be confident, forthright definers in private because they must, they have hesitated to adopt an egghead position in a nationally distributed set of papers.

So, those of you who are seeking the illusive final definition here will be disappointed. What you will find, however, are the authors' careful reviews of current practice, suggestions of principles that may guide you toward better practice, and a highlighting of what the authors see as important influences on our efforts to improve our practice. Trainers who feel the pragmatic solution at present is to adopt the best of current practice will find here a good description of what that practice is in legislation, research, and programming. Those who wish to seek new methods of definition and assessment that better meet concerns such as those voiced by ethological and ecological psychologists should find the reviews a good place to begin and our freely shared best thoughts an encouragement.

I learned much from the reading and thinking that went into the papers I have contributed to this set and from the careful argument and stimulating challenges of my fellow authors and those of you who attended the conference in Charlottesville. I also learned that even when one has pretty well resolved a problem beforehand, sharing it in such company can be an unbalancing, if not a shattering experience. My thanks to all of you who like Epstein, Fink, Cullinan, Kauffman, Neel, and Lakin continue to contribute to my education. In our field, it is of urgent importance that we continue to press one another to improve the specificity with which we locate the groups to whom we make reference and the care with which we describe them.

One final word. A psychologist colleague of mine was told by a prisoner being held in isolation in the state penitentiary following several assaults on fellow prisoners and a guard, "I may be a f----- murderer and rapist, but I sure as hell ain't crazy." Whether we use plain language like "crazy" or professional jargon like "behaviorally disordered" or "emotionally disturbed," our assessment, description, and labeling of students inflicts on them a pain that can only be justified if there are corresponding benefits in terms of treatment, rehabilitation and education. We will never be able to rest comfortably with our solutions to the problems of definition unless we also can solve the problems of treatment — a maxim that all of us have tried to bear in mind as we developed these papers.

Frank H. Wood, Director

Advanced Institute for Trainers of Teachers for
Seriously Emotionally Disturbed Children and Youth

DEFINING DISTURBING, DISORDERED, AND DISTURBED BEHAVIOR

Frank H. Wood
University of Minnesota

Verbal description, definition, classification and labeling are important means used by people to solve problems of adjustment to our environment, including problems of adjustment to disturbing, disordered and disturbed human behavior. "Labeling behavior" has come under strong attack from some quarters in recent years, "labeling" being the marker word for the cluster of activities mentioned in the first sentence. The strongest statement of this criticism is that all such labeling is improper, exposing the one labeled to social punishment that far exceeds any benefits that may be received as a result. Others hold that the real issue is whether a particular label is adequate or inadequate, useful or useless. Sometimes these two aspects of the question, whether labeling is morally justified and whether a given label is useful or not, are argued simultaneously, confusing the discussion considerably. There is no reason why the debate about labeling should not continue, and later in this paper, the writer will suggest some reasons why it is both likely and desirable that it should. The authors of the other papers in this volume have sought to share their perceptions of good and bad practice among special educators who proceed, through various measurement rituals, to define or label certain children and youth as "socially disturbing," "behaviorally disordered" or "emotionally disturbed."

What is really at issue is not labeling as an activity, but labeling that suggests dysfunctional or inappropriate use, perhaps better named "mislabeling," and labeling that conveys a feeling of negative valuing of what is labeled. Nonetheless, since the word "labeling," itself, has come to have such negative connotations for special educators, the author accepts such usage for this paper. He does not accept the same negative connotations for "describing," "defining," or "classifying." If what we call "labeling" is usually done badly, describing, defining and classifying can be and often are done well.

Before proceeding to a discussion of issues in definition, the author would also like to call the reader's attention to subtle differences in meaning of three adjectives that in casual usage are treated as interchangeable: disturbing, disordered and disturbed. Used more carefully, "disturbing" directs our attention to the effects of one person's behavior on the thoughts and feelings of one who observes that behavior. A "disturbed" observer may (or may not) *infer* from his or her observations that the one who behaves has thoughts or feelings that the observer judges to be also "disturbed." The observer may also judge the other's behavior to be

"disordered." Each term has its own positive or negative valence for the one who uses it. The author likes each — in its place of course.

TO DEFINE OR NOT TO DEFINE

Is there indeed something negative and hostile in the definition or classification of children as "handicapped" and deserving of special treatment by professionals in educational and caretaking roles? If so, why do we do it? And furthermore, why do we persist in focusing on one person, nearly always the child, as the "locus of the disturbance," when as Rhodes has argued persuasively, the real locus is the "encounter point between the child and the microcommunity or microcommunities which surround him" (1970, p. 310). The view argued here is that while there is inevitably a negative and hostile aspect to the naming and valuing of behavior as "disturbing, disturbed, or disordered," there is frequently also something positive and well intentioned. It is this duality of valence in our definition of others as in need of special services that sparks the continuing debate about its morality. It is when the positive aspect is weak or missing that defining slips into mere labeling. We cannot fully understand the ethical dilemma we face as special educators unless we recognize the mingling in any act of definition of both positive and negative elements.

In a 1970 article, Rhodes drew from ethological and sociological literature to support his argument that labeling of "different" behavior as "deviant" or "disturbed" is aggressive. He analogized from Lorenz' observations of the extreme arousal of rat colonies to the presence of a strange rat, often leading to the killing of the "stranger," to the disturbance created in human groups by the presence of one whose behavior is perceived as intolerably different from the norm. Our response to disturbing behavior includes actions of controlling, restraining, and even punishing that are clearly aggressive. From a social learning viewpoint, such behavior will be reinforced in the aggressors or observers of their behavior if it leads to a cessation of the disturbance, which would help explain why the punishing behavior Rhodes has protested continues to occur.

But, certain aspects of human behavior toward those whose differentness is disturbing remain unexplained by the aggression hypothesis alone. First, unlike rats, humans seldom aggress so violently against the individual viewed as the focus of the disturbances as to kill them. Second, in many instances, and notably in those where the behavior of individual children and youth is regarded as disturbed or disturbing, we describe our defining and intervening behavior to ourselves and others as succoring, nurturing, or "caretaking." Rhodes may be correct in suggesting that the patterns of behavior aroused by deviant individuals have some determinants that are deeply biological rather than purely cultural in nature; these responses include caring as well as aggressive behavior toward the disturbing others. The research of various sociobiologists and ethologists as summarized by Wilson (1975, 1978) provides support for such a hypothesis.

Both response tendencies must be taken into account if we are to understand the behavior of caregivers in our society, for our response to the "deviant" individual is complex. Our aggressive responses conflict with our nurturing responses, both being deeply rooted in our biological

makeup and strongly, if differentially, reinforced by society. This helps us explain why behavior that in one situation is inferred to be aggressive in another may be inferred to be caretaking.

AMBIVALENCE ABOUT DEFINING AND THE BEHAVIOR OF SPECIAL EDUCATORS

As a step toward applying these ideas to an understanding of the deviance-defining activity of special educators, here is an analysis of different responses by people in differing roles to the variant behavior of individuals and how their responses may influence the treatment of those individuals. The explanation offered begins with the well-established observation that complex dominance hierarchies are characteristic of all human societies. While these dominance hierarchies are relatively stable, they show changes related to time and setting. Factors as yet not fully understood seem to produce a balance between the stability needed for social survival and the flexibility necessary for social vitality.

Humans have developed socialization techniques for training the members of their groups to respond in age-appropriate ways to common social situations. When a group member is "not developing normally," i.e., is failing to show age-appropriate behavior, the sense of disturbance in the group is pervasive. The "community" as well as the family responds with concern. Failures to learn the complex behaviors associated with the dominance system are especially disturbing. These include not only failures to respond appropriately to the dominant behavior of social superiors, but also failures to respond as expected to nurturing behavior, and in situations where resistance to the aggression of dominant individuals or competition for dominance is considered "normal." These failures disturb not only the individuals who are variant's superiors, but his/her peers and subordinates as well.

Critics of labeling have tended to defend the rights of individuals to be "deviant" and suggest that aggressive efforts to change their behavior in the direction of greater conformity to the group norm result from their threat to the existing power structure of the society. If the hypothesis that human caretaking behavior includes both nurturing and aggressive elements is accepted, this seems an oversimplification.

Interventions to change the disapproved or inappropriate behavior tend to be made by dominant members of the group or at least are directed or sanctioned by them. When a group is disturbed, dominant individuals are expected to respond so as to help the group contain and quell the disturbance and to continue to respond until the disturbance ceases. Depending on the severity of the disturbance, the group will sanction their use of varying degrees of aggressiveness in this process. Dominant individuals serve, as well as direct the group, however, and they are simultaneously expected to express the groups' nurturing impulses toward the variant individual, who is viewed ambivalently as "hurt" and in need of succor as well as "deviant" and in need of correction. Dominant individuals must strike a balance between selfishness and altruism with which their group feels comfortable or risk displacement from their position in the dominance hierarchy. Ignoring the group's disturbed state is seldom an acceptable response.

Critics of current caretaking procedures play an important role in generating the social pressures that restrain the aggressiveness in the socializing behavior of caretakers. In actuality, those in critic roles may also be members of the dominant group in the society. In the Figure 1, it is suggested that the response of dominant individuals to the group's disturbance appears to be broken down into a number of discriminable "roles," any one or all of which may be filled at different times by the same individual. At the one end are roles in which individuals who are themselves well up in the dominance hierarchy of their own social group express the group's concern that the dominant "they" are not behaving toward the variant individual as "we" would wish. At the other end are roles in which dominant individuals act out "our" desperate need to have the disturbing variant behavior controlled or stopped lest it destroy the stability of the social system. Most of us run the range of this continuum at one time or another. Biographies of well known critics of society as insufficiently nurturing reveal that they are often quite dominant and demanding of others in their family and friendship circles, while public tyrants may at times be kind and gentle to close associates.

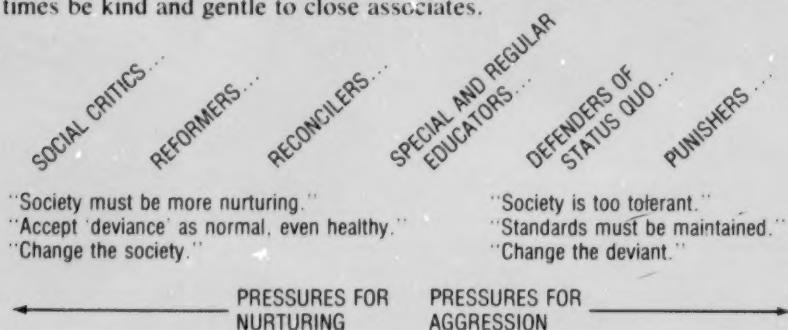


Figure 1. The dynamics of social ambivalence about labeling

If we relate this continuum to special education programming, we would place most of the critics of the present system as too harsh and repressive at the more nurturing end, along with the child advocates and the developers of alternatives to the school as an institution reflecting the dominant values of the society. Advocates of mainstreaming and many special educators fill conciliatory roles, seeking to balance strong interventions with efforts to promote more accommodation to difference by the group. Most regular educators are expected to fill a socializing role, reflecting a social consensus of what constitutes "safe" age-appropriate behavior in their expectations of pupils and strongly rewarding conformity to those expectations. Less often occurring, but tolerated under certain conditions, are the punishers of nonconformity. The author hypothesizes that the distribution of individuals along this continuum at any one time is markedly skewed to the left but lacks empirical data to support this statement.

The position that we take in any discussion of definitions of behavior disorders will be determined in part by our role on the continuum. In some situations, those where we fill a "critic" or "reformer" role and demand that the group be more nurturing toward those whose behavior is deviant, we will be critical of the entire effort to define, rejecting it as punitive labeling and refusing to become involved. Those of us at the extreme change-advocating end of the continuum may even seek to bring group efforts to discuss definitions to a stop or, failing that, disrupt them as much as possible. Those who press forward to discuss alternative procedures for defining and related interventions also frequently divide into contending groups, but in this case, the focus of the disagreement is the verbal adequacy and utility of the definition under discussion. When "critics" are present during such a discussion, they often become allies of those arguing the technicalities of a given definition, and indeed, those who oppose a particular definition will often shift to the critic role and begin to argue against the defining process itself. Our previous discussion has suggested how strongly determined the impulses that contribute to these behavior patterns may be. An awareness of how they interact can help us understand what is going on in some of our own meetings.

This tension has been reflected in the history of special education over the past 25 years. Arising from a sense of disturbance over failures to socialize adequately certain "exceptional-variant" children and youth, these programs continue to be directed for the most part by models that stress changing the deviant individual to fit the expectations of the group rather than the reverse. Our definitions have stressed the "disordered" and "disturbed" aspects of the individual's socially disapproved behavior without giving sufficient attention to its interpersonal context. The result has been frequent lapses from description and classification into the negatively valenced labeling behavior so rightly criticized as more punitive than therapeutic in intent. But justifiable criticism of labeling and of the pro-majority bias of *any* definition of behavior disordered/emotionally disturbed behavior does not guide us to more appropriate description and classification procedures. To attain that goal, some of us must be able to try new procedures again and again, chastened but not immobilized. To fail to do so is to abandon the middle ground of the continuum in Figure 1 to the antagonists at either end with the probable end result gains by the aggressive, punishing faction.

ELEMENTS OF GOOD DESCRIPTIONS OF DISORDERED/DISTURBED BEHAVIOR

What elements should be present in a good description, or in the general sense, "definition," of disordered/disturbed behavior? Four of those to be mentioned relate to verbal aspects of definitions, the other two to the use that we make of them.

Here are the elements in the form of questions:

- (1) The "disturber" element: What or who is perceived to be the focus of the problem?
- (2) The "problem behavior" element: How is the problem behavior described?

(3) The "setting" element: In what setting does the problem behavior occur?

(4) The "disturbed" element: Who regards the behavior as a problem?

And the questions that relate to the use we can make of the definition:

(5) The "operationalizing" element: Through what operations and by whom is the definition used to differentiate disturbers from nondisturbers or to assess the needs of disturbers? (Note: At this point, many traditional definitions move rapidly from descriptions of behavior to inference of disturbance.)

(6) The "utility" element: Does the definition when operationalized provide the basis for planning activities that will benefit those labeled such as needs assessment, individual assessment, program evaluation, etc.?

The specificity with which a definition addresses each of these questions determines its usefulness for the task at hand. The answer need not be the same for each task, and probably should not be, but the questions should be addressed. When they are not, communicators will often assume they understand one another while, in fact, they are maintaining their own personal glosses on the definition.

Take the "disturber" question as an example. Here are a list of terms of increasing specificity:

the seriously emotionally disturbed

seriously emotionally disturbed children

seriously emotionally disturbed student.

seriously emotionally disturbed sixth grade students

seriously emotionally disturbed sixth grade students with learning problems . . .

As we add terms that define the status of the "disturbers" more specifically, our focus narrows and becomes sharper — at least in the center. We have stopped with "seriously emotionally disturbed" and "learning problems," both rather fuzzy terms, at the ends.

For some purposes, better specification of the "problem behavior" is of great help. Descriptors like "disruptive" seem more precise than the general labels "disturbed" or "disordered." As was found in the review by Wood and Lakin in this volume, however, the apparent gain in specificity can be misleading. Our old nemesis, fuzziness around the edges, is always creeping in upon us. For example, Barrish, Saunders, and Wolf (1969), in a study that has been cited in several recent reviews as illustrating a procedure for managing disruptive behavior in a group of fourth-grade students, report that two of the 24 students who had previously "been referred to the principal on a number of occasions for disruptive behavior" (p. 123), were dropped from the group contingency program because their relatively high frequency negative behaviors were penalizing the rest of the group unfairly. However, some of those subsequently citing the study (Hewett, 1972; Haring & Phillips, 1972; Givner & Graubard, 1974; Sloane, 1976) describe the subjects as "disruptive" without noting that the "most disruptive" individuals had been removed from the group. Here, the use of the term "disruptive" conveys a sense of precision in meaning that obscures

an important point about the kind of "problem behavior" with which the procedures were used successfully.

The importance of "setting" as a determinant of behavior has been well documented in a series of observational studies. To cite a few examples: Glavin, Quay, Annesley and Werry (1971) reported that the positive behavior changes achieved and maintained by students in their special classroom did not generalize back to the regular classroom. Zabel (1978), using an ethological approach to study dominance behavior in preschoolers at a special school in a treatment center, found that dominance hierarchies showed marked variations between gymnasium and classroom settings. In another dissertation study, Browne (1975) found that public school programs had high percentages of children with "behavior problems" (conduct disorders), while residential schools had higher percentages of children with "personality disorders" and private day schools higher percentages of students labeled "psychotic." His findings suggest that both problem behavior, and the descriptors used to label it may vary as a function of the vocabulary preferred by the professionals dominant in given settings. Often, the setting issue is confounded with the issue of who is the labeler. As Browne pointed out in discussing the problems involved in his study, "a diagnostic category favored by one psychiatrist [may] be systematically avoided by another" (p. 12).

Szasz (1961), Rhodes and Paul (1978), and others have stressed the importance of social processes in the definition of disturbed behavior. While the subtle interplay of social factors cannot be captured in brief verbal definitions, the role played by those who act as agents of society in the referral and labeling process can be made explicit. Attention to who is the one "disturbed" by the problem behavior in the definition of disturbance inhibits the drift toward the depersonalization of the labeling process. In the end, labels are not assigned on the basis of ratings, observations, or test scores, but by people interpreting and "valuing" such data.

Attention to these first four elements will give us better worded definitions, but we special educators must be concerned with two other elements as well. Our definitions must be both operational and useful in some aspect of our work with problem behavior in the schools. Lilly (1977) had definitions of "learning disabilities" in mind when he made the comment which follows, but the issues he raises are appropriate for this discussion:

If the objective is to develop an operational definition of the term . . . a clear statement is needed that reliably and consistently differentiates children labeled . . . from those not so labeled. Clarity, however, is only one aspect of an operational definition; the other is utility. Not only must an operational definition make the distinction specified above, but the distinction must be meaningful for the purpose of educational programming for individual children. (p. 58)

Forness (1974) made a similar distinction and noted that the present systems of classification fail to meet the "utility" criterion specified by Lilly:

Ways must be found to reconceptualize not only the way such children are grouped but the very ways professionals think about them. Traditional

labeling stimuli associated with what a child is must be dropped, and he must be perceived in relation to what he needs in order to achieve his optimal school progress. (p. 447)

A good definition must not only communicate well for the purpose at hand but must be operationally defined and must be useful to guide whatever action is to be implemented. Let us consider in more detail some aspects of such a definition.

Scott and Wertheimer (1962) provide a clear, brief discussion of the characteristics of operational definitions:

... The scientist's catechism includes the belief that *you cannot study something scientifically unless you can measure it*. . . . Though the scientist may deal on a theoretical level with a variety of abstract concepts . . . before he/she can study them empirically he/she has to designate some kinds of overt behaviors, stimuli, or events, which are directly observable by himself/herself and others, to represent those concepts. This choice of a discriminable event to stand for an abstract concept is known as "defining the concept operationally."

An operational definition of a concept thus refers to the operations (including any instruments, manipulations, measurements, or recording procedures used in the process of observation) by which the researcher assesses the presence or absence (or magnitude) of the phenomenon denoted by a concept. In our use it is not really a "definition" in the sense of being exactly equivalent to the concept, for a variety of operational definitions might be chosen as indices of a single concept . . . For the purpose of a particular study, the researcher chooses a single operational definition, or a limited range of them, and this provides the concrete meaning of the "thing" he [or she] is investigating. (pp. 11-12. Emphasis is Scott and Wertheimer's.)

An "operational definition," then, is chosen by the observer of some phenomenon to represent it and permit its description. While the choice is always to some extent personal and arbitrary, certain conventions influence the selection in most instances. For example, the writer and Lakin's review of the recent research literature did not turn up any instance where "emotional disturbance" had been defined by observation of the presence of "stigmata indicating demon possession." But, since the definitions are not themselves identical with the phenomenon being studied, they can and should vary lest the abstract concepts they represent become reified through frequent usage, as when achievement of a specified intelligence quotient became confirmation of "mental retardation" or "giftedness."

The validity and reliability of our measuring procedures will vary. That is a general problem. In an address made to the conference of Teacher Educators for Children with Behavioral Disorders in February 1972, Dr. Jack C. Merwin, then Dean of the College of Education at the University of Minnesota, acknowledged the limitations in our ability to measure many phenomena of critical importance in education. He suggested that we view our efforts in terms of a continuum of types of data, ranging from the relatively "soft" to the relatively "hard." The researcher's task, he said, is to "harden" the data as much as possible. This is our task when we seek to define "emotional disturbance" or "behavior disorders."

Regardless of their precision, operational definitions of these concepts can never be "true" since the phenomena they describe are too complex to be so easily captured. Instead, it is their "usefulness" that is at question. This introduces the final question, which the writer has called the "utility" question, and carries us from verbal conceptualization and measurement concerns into the area of application and evaluation of outcomes. Does the definition provide a basis for carrying out the tasks of special educational programming or research so as to benefit those labeled? The author finds that many definitions do not address the utility question directly, but in all cases, it seems to play an important part in shaping them. Indeed, does not our proposed plan for the group to be defined often exist before a definition of the group is developed? There is a circularity in the process of definition, and here at the point of proposed use is where it often appears to begin. We must look carefully for the stated or implicit use of a definition.

A CRITICAL REVIEW OF SOME ILLUSTRATIVE GENERAL DEFINITIONS

All of us have tried our hand at a general definition of "emotional disturbance" at one time or another. The writer has chosen four for discussion that give some suggestion of how far we have come, or at least where we have been in our work on this problem during the past 30 years. The first three have been chosen because they were offered by persons who are readily classified as "special educators." The last also seems to fit since, although its authors may not be primarily identified as such, it was chosen for citation as a general definition by the editors of a book on classroom management.

1. Stullken (1950).

Definition of "Social Maladjustment"

The term "socially maladjusted" usually includes those children who are spoken of as truants, delinquents, incorrigibles, behavior-problem cases, predelinquents, and pretruants. Some authors include the emotionally unstable, the nervous, the psychotic, and the withdrawn, negativistic child who does not fit into a social group. Most educators consider any child socially maladjusted who is characterized as a truant, delinquent or incorrigible. This chapter is concerned primarily with those who are so severely maladjusted that they need special educational services either in special groups or in the form of guidance from especially trained personnel in addition to that given by regular teachers. (p. 283)

Stullken's definition was written for his chapter in the National Society for the Study of Education's 1950 Yearbook, *The education of exceptional children*. The yearbook does not contain a chapter devoted to the "emotionally disturbed." Stullken, who at the time he was writing was the principal of Chicago's Montefiore School, a special school for socially maladjusted youth, addresses the topic of the education of the socially maladjusted from a viewpoint not too far removed from that of today, discussing team approaches to the problem and the need for a range of placements.

His definition of the "socially maladjusted" covers almost two pages. The part quoted here is from the last paragraph of this section. The disturbers are "children." The setting in which their behavior is judged maladjusted is not made clear, apparently involving both the school and the community, and it is also not clear who it is who is disturbed by them. The list of problem behaviors includes several that today might be considered "secondary indicators" of behavior disorder such as truancy and delinquency, and educators no longer use the term "incorrigible" with its overtones of irreversibility. Note the comingling of descriptive and inferential terms. It is of historical interest that Stullken seems to have mixed feelings about including the "emotionally unstable, the nervous, the psychotic, and the withdrawn, negativistic child" as falling into the group needing special education services, whereas today, the situation has been reversed. It is now the "socially maladjusted" who are excluded from special programs. Here and elsewhere in the chapter, Stullken leaves unaddressed the question about the operationalizing of his definition.

2. Bower (1960).

Definition of "Emotionally Handicapped"

Characteristics of the "emotionally handicapped" child, who demonstrates one or more of these characteristics "to a marked extent and over a period of time":

- ... An inability to learn which cannot be explained by intellectual, sensory or health factors.
- ... An inability to build or maintain satisfactory relationships with peers and teachers.
- ... Inappropriate types of behavior or feelings under normal conditions.
- ... A usually pervasive mood of unhappiness or depression.
- ... A tendency to develop physical symptoms, pains, or fears associated with personal or school problems. (p. 9)

The second example of a general definition is Bower's definition of the "emotionally handicapped child" from the first edition of *Early Identification of Emotionally Handicapped Children in School*. Again, the disturber is the child, and the verbal definition does not make clear who it is who is disturbed. Although the book establishes the school as being in part the context of the problem behavior, the definition does not clearly address this point either. The problem behaviors are described at some length, and although operational definitions are not included in this statement, the remainder of the book describes Bower's measurement of them through teacher, peer, and self ratings, a procedure described a few years earlier by Ullmann (1952) as yielding a high correlation with the judgment of mental health clinicians that behavior was disturbed. The general terminology is psychodynamic in tone, with inferential statements associated with descriptions of behavior.

It is noteworthy that this definition, with an added inclusion of the "autistic" child and an exclusion of the "socially maladjusted," is the definition used in the regulations implementing Public Law 94-142 (De-

partment of Health, Education and Welfare, 1977, p. 42478). That definition reads as follows:

Definition of "Behavioral Disabilities"

The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance:

- (a) An inability to learn which cannot be explained by intellectual, sensory, or health factors;
- (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- (c) Inappropriate types of behavior or feelings under normal circumstances;
- (d) A general pervasive mood of unhappiness or depression; or
- (e) A tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes children who are schizophrenic or autistic. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed.

Unfortunately, no reference is made to Bower's procedures for operationalizing the definition so its inferential quality is highlighted and the need for a behavioral description base is easily forgotten.

3. *Graubard (1973).*

Definition of "Behavioral Disabilities"

Behavioral disabilities are defined as . . . a variety of excessive, chronic, deviant behaviors ranging from impulsive and aggressive to depressive and withdrawal acts which violate the perceiver's expectations of appropriateness and which the perceiver wishes to see stopped. (p. 246)

Graubard's definition from his chapter on the behaviorally disabled in Dunn's general textbook on the education of exceptional students introduces for the first time a clear statement about the role played by the one who is disturbed in the definition of problem behavior. The definition focuses on "behavioral disabilities" without mention of a "disturber," perhaps because Graubard wished to emphasize the important difference between the person who has some behavioral *abilities* as well as behavioral disabilities and the person who has been subsumed by his problems, the "behaviorally disabled person." Although Graubard uses quantitative terms such as "excessive" and "chronic" in his definition, he does not fully operationalize them, and terms like "aggressive" and "depressive" are inferential in quality. Elsewhere in the chapter he describes a procedure for systematic observation in which the behavior of a target child is contrasted with that of the peer group and the use of rating scales as part of an assessment procedure for determining the severity of the child's problem, but this definition is influenced by psychodynamic and sociological theory as well as by behaviorism.

4. *Ullmann and Krasner (1969).*

Definition of "Abnormal Behavior"

Behavior which is considered abnormal must be studied as the interaction of three variables: The behavior itself, its social context, and an

observer who is in a position of power. No specific behavior is abnormal in itself. Rather an individual may do something (e.g., verbalize hallucinations . . . stare into space, dress sloppily) under a set of circumstances (e.g., during a school class . . .) which upsets, annoys, angers, or strongly disturbs somebody (e.g., . . . teacher, parent, or the individual himself) sufficiently that some action results (e.g., a policeman is called, seeing a psychiatrist is recommended, commitment proceedings are started) so that society's professional labelers (e.g., physicians, psychiatrists, psychologists, judges, social workers) come into contact with the individual and determine which of the current set of labels (e.g., schizophrenic reaction, sociopathic personality, anxiety reaction) is most appropriate. Finally, there follow attempts to change the emission of the offending behavior (e.g., institutionalization, psychotherapy, medication). (p. 21)

This final quote comes not from a textbook on special education but from a book on "abnormal behavior" written by two behavioral psychologists in 1969. It is reproduced here as quoted by O'Leary and O'Leary in their edited collection of readings on classroom management (1977, p. 21). This quote addresses at some level all of the questions we have posed while making it clear that the specifics of any given definition of disturbed behavior may differ from the examples provided. The individual *disturber* does something in a particular *setting* ("set of circumstances") which is considered a *problem behavior* by one who is *disturbed* by it and sets into motion the *operations* that may lead to formal labeling of the individual or his/her behavior as "abnormal" or "disturbed." Inference about disturbance is related to descriptions of specific behaviors. The details of the operationalization are not given, but Ullmann and Krasner make the important point that whatever the procedure may be, it must be sanctioned by persons in positions of power over the person being labeled. This social power component in the labeling equation was implied by Graubard, but here its importance is made more explicit. It is also clear that labeling implies intervention, although here again, the connections are not described.

CONCLUSION

The presenters at this conference were all persons who agreed to participate in a discussion of how to improve our describing and defining procedures so as to guide our forceful but well-intentioned efforts to socialize individuals who are disturbing to ourselves or others because of certain excesses or deficits in their social behavior. We view ourselves as primarily socializers and conciliators, but we reflect in our professional lives the ambivalence felt by us all by being at times also reformers, critics, and even social rebels. In our many guises, we and all special educators are thus part of the complex interaction system that continually renews and changes our society's programming for behaviorally disordered/emotionally disturbed students.

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ADMINISTRATIVE DEFINITIONS OF BEHAVIOR DISORDERS: STATUS AND DIRECTIONS

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It may be part and parcel of human existence that children will behave in ways judged by adults to be incompetent, disorderly, distressing, or otherwise deviant. Historical reviews of special education for the behaviorally disordered (Kanner, 1962; Kauffman, 1977) and juvenile corrections (Achenbach, 1976), for instance, indicate that the varieties of disturbances exhibited by children apparently have not changed much across the past several decades, perhaps centuries. Also persisting across time has been the effort to conceptualize the diverse deviations in individual functioning into a manageable number of types, dimensions, or other classifications (Robbins, 1966). The growth and bureaucratization of the helping professions (Rhodes & Paul, 1978) have probably contributed impetus to attempts to define and categorize deviant child functioning. Numerous issues surrounding definition and classification of handicapping conditions have been extensively studied (e.g., Hobbs, 1975), and the pros and cons of categorical educational services to handicapped pupils have received substantial attention in the 1970s (Hallahan & Kauffman, 1978; Lilly, 1979; Reynolds & Balow, 1972).

Like other helping professionals, special educators of pupils with behavior disorders are confronting the issues of definition and classification in various contexts, as when decisions must be made about categorical versus noncategorical services. One important aspect of this situation that has not received enough attention, however, is the role of administrative definitions in special education for children with behavior disorders. The purposes of the present paper are to describe definitions of behavior disorders, especially state education agency definitions, to analyze important aspects of these definitions, to point out their strengths and drawbacks, and to suggest some general directions in this area.

TYPES OF DEFINITION

Definitions of children's behavior disorders can be intended to serve various purposes, and on this basis one can discriminate several types of definition. For example, a *research definition* of behavior disorders ideally functions to clarify the external validity of an investigation by indicating the population (of children, behaviors, interventions, or other phenomena studied) to which obtained results are applicable. Good research definitions facilitate replication of research findings by other investigators and can help practitioners determine whether the outcomes of a study are

relevant to their educational efforts. Research definitions are discussed in another paper in this volume.

Another type of definition of children's behavior disorders is the *authoritative definition*. This kind of position statement can be intended to structure an exposition of behavior disorders from some point of view (e.g., that of the author of a text book or journal article); it may be meant to be controversial, provoking consideration and thoughtful rebuttal of the author's position; or an authoritative definition may simply indicate the author's view of behavior disorders as it has been shaped by his professional training and experience and personal philosophy. Authoritative definitions make for interesting reading in and of themselves, and some have had undeniable influence on the field of special education for the behaviorally disordered. Authoritative definitions are characterized by a great variety of viewpoints and emphases. A sample, selected from among many possibilities (see e.g., Hewett & Forness, 1974; Kauffman, 1977) is presented in Figure 1.

Biological: "A biogenic mental disorder is a severe behavior disorder that results solely from the effects of biological factors, including both gene action and the effects of the physical-chemical environment" (Rimland, 1969, p. 706).

General psychiatric: "An emotionally disturbed child is one whose progressive personality development is interfered with or arrested by a variety of factors so that he shows impairment in the capacity expected of him for his age and endowment: (1) for reasonably accurate perception of the world around him; (2) for impulse control; (3) for satisfying and satisfactory relations with others; (4) for learning; or (5) any combination of these" (Report of the Joint Commission on Mental Health of Children, 1969, p. 253).

Developmental-eclectic: "Disturbances and deviations of children's development are . . . interdependent, interactional phenomena, with the child acting as a developing biopsychological organism within his social environment" (Chess & Hassibi, 1978, p. 76).

Ecological: "In the community participation analysis of emotional disturbance, the problem is seen as . . . a reciprocal condition which exists when intense coping responses are released within a human community by a community member's atypical behavior and responses. The triggering stimulus, the rejoinder of the microcommunity, and the ensuing transactions are all involved in emotional disturbance" (Rhodes, 1970, p. 311).

Educational: "Children with behavior disorders are those who chronically and markedly respond to their environment in socially unacceptable and/or personally unsatisfying ways but who can be taught more socially acceptable and personally gratifying behavior" (Kauffman, 1977, p. 23).

Behavioral: "A psychological disorder is said to be present when a child emits behavior that deviates from a discretionary and relative social norm in that it occurs with a frequency or intensity that authoritative adults in the child's environment judge, under the circumstances, to be either too high or too low" (Ross, 1974, p. 14).

Figure 1. Selected authoritative definitions of behavior disorders.

A third type of definition of children's behavior disorders is the *administrative definition*, as found in rules, regulations, and pronouncements of governmental agencies. These definitions are apparently intended to guide the delivery of services to children with behavior disorders, either directly or indirectly. For example, the U.S. Office of Education's definition, as contained in Public Law 91-230 [20 U.S.C. 1401(1)], is found in many documents circulated by the Bureau of Education for the Handicapped (BEH). This BEH definition (see Figure 2) is virtually identical to the one offered by Bower (1969) except that the BEH version calls for exclusion of "socially maladjusted" pupils.

BEH definition: Seriously emotionally disturbed children does not include children who are socially maladjusted but not emotionally disturbed. In distinguishing between such children, the following criteria may be used to determine those children who are seriously emotionally disturbed: those children who exhibit one or more of the following characteristics over a long period of time and to a marked degree:

- (a) An inability to learn which cannot be explained by intellectual, sensory or health factors;
- (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- (c) Inappropriate types of behavior or feelings under normal circumstances;
- (d) General pervasive mood of unhappiness or depression; or
- (e) A tendency to develop physical symptoms, pains or fears associated with personal or school problems.

Figure 2. BEH definition of seriously emotionally disturbed children.

State educational agencies also have definitions of behaviorally disordered children, designed presumably to guide state and local services to such pupils. State education agency definitions would appear to have several functions and implications. (a) Most obviously, a state definition identifies behavioral, status, and other characteristics of those pupils who are eligible for services; at least theoretically, this strongly influences whether or not a particular pupil will be served. To illustrate, a comparison of the actual definitions of two adjacent states suggests that a pupil who shows a particular set of behavior problems could be eligible for services in one but ineligible in the other. This is inferred from the fact that one definition specifically excludes "those students whose learning and adjustment problems are primarily due to delinquency and drug abuse." Thus, it may be that interstate residence changes of pupils with behavior disorders can affect their eligibility for special education. (b) The wording of a definition may indicate how a program is communicated to pupils, parents, and the local community. Consider the differential connotations of the following statements, excerpted from two state definitions: "Emotionally handicapped means a child who, because of social or emotional problems . . . requires special classes or special services designed to promote his educational and emotional growth and development;" versus "Individuals with serious emotional disturbance are those with serious behavior

disorders and learning problems associated with emotional maladjustments . . . (which) may deviate so markedly from the norm of the groups as to constitute a danger to themselves or to others." It is not difficult to imagine that special education programs for children with behavior disorders established under the former definition would suggest more optimistic goals and favorable impressions than would the latter. (c) State definitions may actually dictate important aspects of programs for behaviorally disordered pupils. For example, assessment practices such as "an individual psychoeducational evaluation," "a neurological examination," and "the evaluation of a psychiatrist trained or experienced in working with children" are mandated in some state definitions. (d) State education agency definitions would appear to have potential effect on prevalence estimates of pupils with behavior disorders. This would in turn have important bearing on financial and other types of support by state governments for state- and local-level programs for the behaviorally disordered, for preservice and inservice teacher training efforts and priorities, and for other critical aspects of special education for the behaviorally disordered. Of course, factors other than the state definition, such as political phenomena, also influence level and types of support for special education programs. Sabatino (1979) has suggested that state definitions are intentionally framed to allow "just enough leeway so that street-level bureaucrats in local educational agencies can operationalize policy at a local level; thus . . . the local director of special education may actually determine the real regulations" (pp. 336-337).

Until recently, state definitions of educational handicaps had received only scant attention; in the past several years, two groups (Gillespie, Miller, & Fielder, 1975; Mercer, Forgnone, & Wolking, 1976) have surveyed state agency definitions of learning disabilities, not unexpectedly finding great variation in content among these definitions. Earlier, Schultz, Hirshoren, Manton and Henderson (1971) reported on state provisions for behaviorally disordered pupils including some information on state definitions. This report also noted that there was little consensus among states on a definition. In order to acquire updated information on state definitions, the authors undertook a survey of state definitions in late 1976, as reported elsewhere (Epstein, Cullinan, & Sabatino, 1977) and described briefly below.

SURVEY OF STATE DEFINITIONS

In November, 1976, the chief administrator of special education programs in each of the 50 states and the District of Columbia was requested to forward that part of state regulations or other source which governed the definition of behavior disorder for the purposes of determining a pupil's eligibility for special educational services. Together with follow-up contacts, this request produced a response from all 51 agencies. Based on a careful reading of each state definition and familiarity with authoritative definitions such as those previously presented, we were able to detect 11 types of information, or "components," to be found in one or more of the definitions. The final forms of the 11 components actually used

in our analysis were arrived at in a stepwise fashion with some modification of components at each step. Each state definition was then checked to determine the presence or absence of each component. A graduate assistant, using the final version of the components, independently analyzed the definitions in order to estimate how reliably the component analysis of state definitions could be carried out; interscorer agreement figures were computed separately for each component by dividing the number of instances in which the two separate analyses agreed by the number of opportunities to agree. Descriptions of the final 11 components used in the analysis of state definitions are found in Figure 3.

Components of State Definitions of Behavior Disorders

Disorders of Emotion/Behavior: Emotions or behaviors are improper, immature, or a specific disturbance

Interpersonal Problems: Can't build or maintain social relations

Learning/Achievement Problems: Such problems exist or are caused by emotional problems

Deviation from Norm: Emotions or behaviors are unusual or inferior, compared to a referent

Chronicity: Problem has been present a long time

Severity: Problem is extreme or pervasive

Etiology: Problem is attributed to some cause

Prognosis: Problem is amenable to treatment

Exclusions: Reasons that the child cannot qualify for services

Special Education Needed: Child should receive special education

Certification: Child must be labeled

Figure 3. Components of state definitions of behavior disorders.

In order to better understand how the analysis was done, the reader is encouraged to note which components are present in and which absent from the state definition in Figure 4. According to our analysis, this definition contains the following components: disorders of *emotion/behavior*, *interpersonal problems*, *learning/achievement problems*, and *etiology*.

One state's definition: "Emotionally disturbed shall mean children with behavioral disorders variously designated as neurotic, psychotic, or character disordered, and whose inabilities may manifest themselves in school accomplishment, social relationships or feelings of self adequacy and may result both from experience or biological limitations."

Figure 4. One state's administrative definition of behavior disorders.

Briefly, the results of our survey and analysis were as follows. The District of Columbia and 48 states had a definition of behavior disorders relevant to pupil eligibility for special education. One state indicated that such a definition was under development but as yet unavailable; another state had recently changed its regulations intentionally to avoid any defini-

tion of particular categories of handicapping conditions. Therefore, there were 49 definitions to which the 11 components could be applied.

The number of components in state definitions ranged from two to nine; most frequently, a definition had five components. Interscorer agreement ranged from 71% to 100%, with a median of 92%. This indicated that the components applied reliably enough for present purposes, although if these components were to be used again for some reason, two or three of them might need further specification. Table 1 summarizes the component analysis.

Table 1
Occurrence and Agreement for State Definitions
of Behavior Disorder

Component	Occurrence		Percent Agreement
	Frequency	Percent	
Disorders of Emotion/Behavior	49	100	76
Interpersonal Problems	34	69	71
Learning/Achievement Problems	27	55	92
Deviation from Norm	23	47	84
Chronicity	18	38	100
Severity	21	43	92
Etiology	8	16	90
Prognosis	4	8	100
Exclusions	18	37	92
Special Education Needed	31	63	96
Certification	17	35	94

Note: From "State Definitions of Behavior Disorders" by M. H. Epstein, D. Cullinan and D. A. Sabatino, *The Journal of Special Education*, 1977, 11, 417-425. Copyright 1977 by The Journal of Special Education. Reprinted with permission.

One component — *Disorders of Emotion/Behavior* — was present in every definition. Originally an attempt was made to separate this component into "disorders of emotion" and "disorders of behavior." Roughly one-third of the definitions used the word "emotion" and/or related allusions to intrapsychic disorder without mentioning "behavior" problems; another one-third used the word "behavior" and/or referred to one or more overt behavior problems with no mention of emotional difficulties; the remaining third of the definitions made mention of both types of problems. However, this discrimination could not be reliably scored, so the two types of problems were collapsed into the present first component. Although a majority of state definitions also included the components *Interpersonal Problems* and *Learning/Achievement Problems*, various definitions featured diverse terms and emphasized different aspects of these problems. These first three components corresponded to the major types of problems experienced by pupils who qualified for special education for the behaviorally disordered.

Almost one-half of the definitions included *Deviation from Norm* and *Severity* components. These, together with *Chronicity*, *Etiology*, *Prognosis*, and *Exclusions*, acted as qualifiers of the three major types of problems. Note that *Etiology* and *Prognosis* were actually found in very few state definitions.

The last two components — *Special Education Needed* and *Certification* — appear to be intended to facilitate administration of special educational services to behaviorally disordered pupils. *Special Education Needed* establishes that appropriate education cannot take place in the regular classroom and/or can be delivered within some special educational service system. *Certification* calls for some individual or group officially to diagnose the pupil or otherwise verify that he or she is indeed behaviorally disordered.

PROBLEMS WITH STATE DEFINITIONS

Shortcomings of the state definitions reviewed can readily be found. Some definitions were unabashedly circular, such as the one which stated that "individuals with serious emotional disturbance are those with serious behavior disorders and learning problems associated with emotional maladjustments. . . ." Some definitions appear to contradict themselves, as in the case of one state that defined emotionally disturbed children to include those showing excessive aggression, persistent inattention, or diagnosis as sociopathic, but specifically excluded the socially maladjusted child. Definitions that included *Etiology or Prognosis* components assume more than is presently known about the origins and developmental course of most behavior disorders, and thus are essentially meaningless. Numerous definitions had a strong medical-psychiatric flavor, as indicated by the terminology used or statements that psychiatric evaluation was prerequisite for certification as behaviorally disordered; contemporary special educators generally consider this to be an obsolete perspective. There also were certain problems of inconsistency across state definitions: in more than a few cases, one definition was dissimilar to or contradicted another, suggesting that a child's eligibility for special education for the behaviorally disordered could be dependent to some extent on his place of residence.

State education agency definitions of behavior disorders additionally are subject to some of the problems and drawbacks characterizing other categorical definitions of handicapping conditions. Some of these problems include the potential detrimental effects of labeling pupils, the overlapping nature of handicaps characterizing behaviorally disordered, learning disabled, and mentally retarded pupils, and difficulties in the measurement of important constructs linked to behavior disorders of children.

Labeling. Various ill effects of assigning a pupil some label that indicates an educational handicap have been suggested. For instance, surveys indicate that the labeled pupil and his parents usually dislike the designation as handicapped. It is believed that labeling a pupil may have detrimental effects upon the pupil's self-concept and his popularity and acceptability among peers. Another suggested harmful effect of labeling is that it can lower teacher expectations of pupil progress and thereby initiate a self-fulfilling prophecy cycle of underachievement. These and other problems of labeling have been described extensively elsewhere (e.g., Lilly, 1979; Mac-Millan, Jones, & Aloia, 1974).

Overlapping of categories. Evidence has been reviewed (e.g., Kauff-

man, 1977; Hallahan & Kauffman, 1976) that there is a great deal of overlap among mildly and moderately behaviorally disordered, mentally retarded, and learning disabled pupils on intellectual ability, achievement, deviant behavior, and other variables. This evidence is compatible with the common experience of educational practitioners, and suggests that it may not be easy to find pupils who clearly fit a particular category of educational handicap such as "behaviorally disordered."

Measurement problems. Another serious shortcoming of some state and other definitions that are to be actually applied in practical situations is their inclusion of terms and constructs which may be difficult to measure. Some of the constructs involved in the field of children's behavior disorders are very resistive to operational definition, particularly those concerned with a pupil's attitudes, feelings, and states of mind. Other important constructs such as overt disruptive behavior appear to be, at least on paper, amenable to operational definition and careful measurement; in these cases, actually achieving good measurement would likely require a good deal of concerted effort both in the planning and actual implementation of assessment efforts.

PROBLEMS WITH ABOLISHING CATEGORICAL STATE DEFINITIONS

While categorical definitions of handicapping conditions have been justifiably criticized on a number of points, one must also consider some of the reasons that they remain in use. State reimbursement plans for local special education programs are commonly tied to the number of pupils served per type of handicap. In fact, in some states the amount of reimbursement can vary by type or severity of handicap, or by type of service provided. Gallagher, Forsythe, Ringelheim, and Weintraub (1975) reported that the majority of state directors of special education believed that federal and/or state laws and regulations require the identification of educationally handicapped children by type of handicapping condition for accounting purposes.

Further, the removal of categorical identification of handicapped pupils could affect the amount of funds available for special education. On the one hand, educational administrators generally feel that decategorization could drastically reduce funding of special education programs, at least temporarily; conversely, legislators may fear that decategorization could lead to an increase in the number of pupils becoming eligible for special education, thus raising the costs of special education. Additionally, Gallagher et al. (1975) presented evidence that federal programs to aid general education benefit a disproportionately small percentage of handicapped children, suggesting that funds may need to be specifically earmarked for handicapped children if they are to receive a full share.

Some of the present categories of special education are associated with parent or other advocacy groups which have expended much sustained effort to achieve and expand funding and services for children experiencing certain handicaps. There is some question that such advocacy would be maintained if the products of these efforts were to be spread over various

types of handicapped children. The foregoing problems, and others, have been described more extensively by Gallagher et al. (1975), Goldstein, Arkell, Ashcroft, Hurley, and Lilly (1975), Hallahan and Kauffman (1978), Lilly (1979), and Macmillan (1977).

The presently popular response to the difficult problems of definition, categorical special education, labeling, and so on, is to disregard particular categories of exceptionality for instructional purposes, concentrating instead upon the measurement and remediation of unproductive academic, interpersonal, and other educational disabilities. This is a sound approach because it enables special educators to provide services to children with behavior disorders on educationally relevant bases, even in the absence of consensus on a definition.

While numerous arguments against and for categorical definitions can be listed, none is particularly convincing. It is not clear that categorical definitions preclude or inhibit noncategorical delivery of special education. Certainly one can find children with behavior disorders who have been categorically defined and subsequently provided with appropriate education through categorical programs; similarly, cases supporting the viability of noncategorical programming can be found. Unfortunately, though, too often children with behavior disorders or other educational handicaps receive inadequate service, regardless of whether it is offered from a categorical or a noncategorical framework. Thus, the central issue in special education for pupils with behavior disorders is the shortage of programs that deliver effective educational services. Only rarely are teaching techniques recommended on the basis of credible demonstrations of their power to produce desired improvements in pupil functioning. Moreover, available teaching techniques are not always employed properly by teachers of the educationally handicapped. For these and other reasons, a technology of teaching children with behavior and learning disorders is in its infancy. Further development of this technology must be the main concern of the special education profession, and unless advances are made in this area, related issues such as selection of preferred service delivery paradigms (e.g., special class versus resource room versus mainstreaming, categorical versus noncategorical identification) would not appear to be of primary significance. Assuming that advances in teaching technology for handicapped pupils do materialize, however, state educational agency definitions of educational handicap, including behavior disorders, need to be further addressed.

RECOMMENDED DIRECTIONS

It is reasonably clear that present state definitions of behavior disorders show major shortcomings (Epstein et al., 1977; Schultz et al., 1971) and need to be modified. Our general recommendation is that the issue of state definitions of behavior disorders be formally examined with an emphasis on empirical evaluation of essential aspects of this issue (for instance, the categorical versus noncategorical point). We wish to suggest the following directions that could facilitate such a formal examination.

Formulation of exemplary definitions. Knowledgeable individuals con-

cerned with the delivery of service to behaviorally disordered pupils need to be consulted with respect to state definitions. These individuals might include teachers and parents of behaviorally disordered pupils, special education program's administrators drawn from local, state, and federal levels, university special education teacher trainers and researchers, and other appropriate individuals. Their resources and expertise might be mobilized through the establishment of a panel or multiple committees, a mechanism for soliciting ideas from the field, or other appropriate means for addressing the major issues surrounding state definitions, including the shortcomings indicated earlier, categorical versus noncategorical language, and so on. A major task of these consultants should be to frame one or more "ideal" definitions that could apply to pupils with behavior disorders.

Operationalize definitions. The meaningfulness of any definition framed is closely related to the extent to which its crucial concepts can be measured. A second major task of the working group would be to make certain that important components of each definition are readily measurable. Definitions addressing components typically found in existing state definitions would probably have to deal with "major problem areas" (deviant behaviors and emotions, academic and interpersonal problems). A view of these problems consistent with the behavioral model (e.g., Ross, 1974) for instance, might focus on various behavior patterns that, when exhibited too much or too little, indicate a high probability of behavior disorder. Further, definitions seemingly would need to address "qualifiers of behavior disorder," such as chronicity and severity, in order to come to grips with the question of the boundaries of acceptable behavior. Recent developments in social validation through peer comparison (Cullinan, Epstein, & Kauffman, in press; Kazdin, 1977; Nelson & Bowles, 1975) could be relevant to efforts to operationalize qualifiers of the major problem areas.

Clearly some of the important aspects of any definition framed would be more easily measurable than others. Definitions that are highly compatible with the behavioral view, for instance, might be expected to present fewer difficulties in the attempt to operationalize concepts. However, many behavioristic strategies may be impractical or unfeasible in the context of an administrative definition. The need to provide measurability to important components of definitions of behavior disorders is great, but the problems associated with this effort are also great (cf. Kauffman, 1977), so it is clear that the present recommendation implies considerable commitments of time and effort from those concerned.

Field testing. Once a limited number of "ideal" state definitions have been framed and operationalized, each needs to be applied and evaluated. Conceivably, field test sites that are demographically representative of American school systems might be located and assigned to the various ideal administrative definitions. Each site would then apply its definition for a reasonable period of time, during and following which such applications would be evaluated on multiple variables related to time and financial cost of implementation, validity of the procedures used as compared to other identification methods, subjective evaluations of participants in the procedure, and other important features.

Administrative definitions of pupils' behavior disorders are clearly deserving of concern, attention, and action on the part of special educational professionals and others involved with school children showing behavior disorders. There are several reasonable arguments both for and against existing categorical definitions. In fact, many of the major weaknesses of the present categorical definitions also apply to noncategorical definitions. We believe, as Noah Webster must have, that if one is going to define something he may as well do it right. Our recommendations, general and ambitious as they are, suggest one way in which steps can be taken toward more relevant and usable state definitions of behavior disorders.

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DEFINING EMOTIONALLY DISTURBED/ BEHAVIORALLY DISORDERED POPULATIONS FOR RESEARCH PURPOSES

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The adequate description of emotionally disturbed/behaviorally disordered children and youth for research purposes is a precondition for effective communication and the generalization of findings. The lack of clear descriptions of subject populations and replicable defining procedures severely limits the usefulness of much research being done at present. The authors claim no priority for this observation. For example, Balow, Rubin and Rosen (1977) noted at the end of their review of the relationship between pre- and perinatal complications and later behavior disorders of children:

Throughout this paper we have commented on the difficulties in conducting research in this area and have criticized, at times rather severely, the quality of existing research . . . The problems of definition and measurement, while they appeared first to be mainly "technical" psychometric problems, upon examination become challenges to much of the current thinking in the field of child behavior (p. 84).

In their judgment, the comparison of findings from the studies surveyed often required leaps of inference they could not justify. If a similar comment must be made about the general research literature on the education of emotionally disturbed and behaviorally disordered school-aged populations, the citations made of that literature in our reports in reality do not provide an empirical basis for our statements. Such references would become merely ritual gestures.

Rather than arguing the case for ritual gestures as an important element of belief systems, the authors have tried to assess the actual situation at present by analyzing the definitions used in a representative group of recent research studies published in some of the journals read by special educators. We asked questions like: How are populations defined? To what extent are the definitions used in different studies comparable? Are they interpretable, replicable? And finally, how might the situation be improved?

METHOD OF REVIEW

In our examination of research in the area of childhood emotional disturbance, the focus was not on what was discovered but on the ways in which researchers described and talked about the populations* under study. At the beginning, we arbitrarily grouped journals which report on

the topic of interest into three clusters: "special education journals," "psychology journals," and "behavioral psychology journals." The clustering resulted from our assumption that editorial differences in theoretical and/or applied perspective would result in systematic differences in the definitions used by authors of published studies. The journals surveyed and our clusterings are shown in Table 1.

Table 1
List of Journals Reviewed

Special Education	Psychology	Behavioral
American Journal of Orthopsychiatry (3)	Child Development (1)	Behavior Modification (2)
Behavioral Disorders (0)	Journal of Abnormal Child Psychology (3)	Behavior Research and Therapy (4)
Exceptional Children (10)	Journal of Clinical Psychology (2)	Behavior Therapy (6)
Journal of Learning Disabilities (1)	Journal of Consulting and Clinical Psychology (9)	Journal of Applied Behavior Analysis (9)
Journal of Special Education (1)	Journal of Genetic Psychology (2)	
Psychology in the Schools (6)	Psychological Reports (4)	
21	21	21

*Number of articles selected from each journal appears in parenthesis

Issues of the selected journals published between 1968-1977 were screened, and those articles whose titles appeared to meet the following criteria were admitted to an initial pool. The number of articles thus selected from each cluster varied as follows: 29 articles from special education journals, 84 articles from psychology journals, and 63 articles from behavioral psychology journals. An arbitrary decision was made to sample 25% (21) articles from the largest journal pool (psychology) and equal numbers from each of the other two clusters. A random sampling procedure was used. If, after being drawn, an article was found not to meet the specified criteria, it was rejected another chosen to replace it.

The criteria used in the selection of the articles are as follows:

- 1) The article reported on more than one subject,
- 2) The subjects were in a school setting or of school age,
- 3) The subjects were characterized as having social behavior sufficiently abnormal to be of concern to an adult referring or treatment agent,
- 4) The primary emphasis of the article was *not* on parent characteristics,
- 5) Subjects were *not* considered "autistic" or "childhood schizophrenics,"
- 6) The research did *not* concern the treatment of specific phobias,
- 7) The article did *not* refer to "delinquency" without further describing the subjects as having persistent emotional and/or behavioral problems.

*Throughout the paper, we have used the terms "population" or "subjects" because we did not find that the selection procedures used could be considered adequate for the definition of a "sample," i.e. a randomly chosen subset of a population.

Articles meeting these criteria (Table 2) were abstracted with particular attention to the author's characterization of the subject population. As will become apparent later in the paper, the analysis went beyond attention to the "primary label" used by the author to determine how the population was described in the body of the article as well.

Table 2
List of Research Reports by Author and Type of Study

- (I) *Intervention* — Research documents change in subjects corresponding to a specific program or program modification.
- (D) *Descriptive* — Research documents characteristics of subjects at a specific time or change in subjects over time without introducing a specific program or program modification.

Special Education	Psychology	Behavioral
Brown & Richard (1969)	D Giebink et al. (1968)	I Martin et al. (1968)
Graubard (1969)	I Zax et al. (1968)	D Meichenbaum et al. (1968)
Hewett et al. (1969)	I Hall & LaDriera (1969)	D Phillips (1968)
Minde & Werry (1969)	I Long et al. (1970)	D Wahler (1968)
Weinstein (1969)	I Rau et al. (1970)	D Barrish et al. (1969)
Vacc (1972)	I Schectman (1970)	D Horton (1970)
Lovitt (1973)	I Cowen et al. (1972)	I Herman & Tramoritana (1971)
Vander Kolik (1973)	I Vacc (1972)	D McNamara (1971)
Culbertson (1974)	I Morena & Litrownik (1974)	I Cotler (1972)
Gamboa & Garrett (1974)	I Patterson (1974)	I Nelson et al. (1973)
Zern et al. (1974)	D Bugental & Love (1975)	D Patterson & Reid (1973)
Kirschner & Levin (1975)	I Lobitz & Johnson (1975)	D Rickard et al. (1973)
Alexander & Apfel (1976)	I Adler & Berkowitz (1976)	D Santogrossi et al. (1973)
Haubrich & Shores (1976)	I Clements et al. (1976)	I Drabman et al. (1974)
Robin et al. (1976)	I Dietrich (1976)	D Kifer et al. (1974)
Stein et al. (1976)	I Finch et al. (1976)	D Wiltz & Patterson (1974)
Strain & Wiegierink (1976)	I Kent & O'Leary (1976)	I Walker et al. (1975)
Calhoun & Elliott (1977)	I Young (1976)	D Alexander (1976)
Clements & Tracy (1977)	I Dean (1977)	D Lavigueur (1976)
Nahme-Huang (1977)	I Durlak (1977)	I Forehand & King (1977)
O'Leary & Schneider (1977)	I Garrity et al. (1977)	I Peed et al. (1977)
19 2	8 13	20 1

GENERAL DESCRIPTIVE INFORMATION

Of the 63 studies examined for this review, 48 (more than three-fourths) described interventions with the behavior of children or youth. To go a step farther, two-thirds of the 48 intervention studies reported attempts to manipulate contingent events systematically so as to change specific subject behavior, and could therefore, be classified as "behavioral." Thus, the intervention studies reviewed, regardless of journal, more frequently measured change in terms of observations of behavior than through assessment of cognitive or affective processes by interviews or testing.

On another dimension, approximately one-half (13) of the studies sampled from the psychology journal cluster were classified as "descriptive." That is, the authors attempt to describe characteristics of the population rather than to change their behavior. Two descriptive studies were among those sampled from special education journals, one from a behavioral journal. Thus, the great majority of the special education and behavioral journal articles are in the intervention study group.

PRIMARY LABELS AND THEIR SYNONYMS

In the studies reviewed, fifteen different primary labels were used to describe the subjects of the research. We define "primary label" as the term or phrase most frequently used by the author of a research report to describe the subjects under study, the general term under which all subjects are subsumed. The primary labels employed in the studies reviewed are listed here in order of frequency:

<u>Primary Label</u>	<u>Frequency</u>
emotionally disturbed	24
disruptive	8
behaviorally disordered	5
behavior problem	5
delinquent/offender	4
aggressive	3
pre-delinquent	3
conduct problem	2
maladapting	2
noncompliant	2
behaviorally disabled	1
behaviorally disturbed	1
moderately disturbed	1
emotionally handicapped	1
conduct disordered	1
	<u>63</u>

Of course the authors also used other terms to describe their subjects to escape excessive repetition of the primary label. Most authors used various synonyms. Many of these synonyms occurred as primary labels in other studies and so are listed above. A few new terms appear only as synonyms, however. Here are some, together the primary label used and the author of the article.

behavior deficits	<i>for</i>	behaviorally disordered (Strain & Wiegierink, 1976)
anti-social	<i>for</i>	disturbed delinquents (Graubard, 1969)
maladjusted	<i>for</i>	emotionally disturbed (Minde & Werry, 1969)
acting-out	<i>for</i>	behavior problems (Walker et al., 1975)
anti-social	<i>for</i>	aggressive (Wiltz & Patterson, 1974)
management problems	<i>for</i>	institutionalized offenders (Meichenbaum et al., 1968)
behavioral deviates	<i>for</i>	behavior problems (Martin et al., 1968)
deviant	<i>for</i>	disruptive (Wahler, 1968)
problem children	<i>for</i>	predelinquent (Kifer et al., 1974)

We noted one interesting but not unexpected convention in the usage of primary labels and synonyms. Authors who refer to their subjects as "emotionally disturbed," "emotionally handicapped," or as having "emotional problems" rarely refer synonymously to them as "behaviorally disordered," "behaviorally disabled," or "behaviorally disturbed." The reverse is also true. In only four studies (Bugental and Love, 1975; Dean, 1975; Schechtman, 1970; Brown and Richard, 1969) are "emotional disturbance" and "behavioral disorders," and their variations or synonyms, used interchangeably. This is especially striking since one or the other of these two clusters of terms are used as primary labels or defining terms in two-thirds of the studies reviewed (Table 3).

Table 3
Nature of Primary Labels in Sampled Research Reports

Primary Label Groups		Total	Journal Groups		
			SpEd	Psych	Behavioral
Generic category	emotional disturbance/handicap, etc.	(26) 41%	13 62%	13 62%	0 0%
	behavior problem/disorder/disability, etc.	(13) 21%	4 19%	4 19%	5 24%
	maladaptive children, school maladaptation	(2) 3%	0 0%	2 10%	0 0%
		41(65%)	17(81%)	19(90%)	5(24%)
	conduct problem, conduct disorder	(3) 5%	1 5%	2 10%	0 0%
	delinquent, pre-delinquent, disturbed delinquent	(6) 10%	1 5%	0 0%	5 24%
		9(14%)	2(10%)	2(10%)	5(24%)
	disruptive	(8) 13%	1 5%	0 0%	7 33%
	aggressive	(3) 5%	1 5%	0 0%	2 10%
	non-compliant	(2) 3%	0 0%	0 0%	2 10%
Specific category		13(21%)	2(10%)	0(0%)	11(52%)
	Total	63	21	21	21

Since these contrasting groups of terms are used so frequently, but so seldom as synonyms, one might conclude that they are descriptive of discriminably different groups of subjects, two distinct "populations." As will become apparent when we come to discuss the operational definitions of the primary labels, this is not the case. One author's selection of terminology suggesting the subjects' problems lie in the cognitive or affective area (emotional disturbance) in contrast to another's selection of terminology suggesting that they have learned to behave in disapproved ways (behavior disorder) seems more determined by their respective theo-

retical allegiances than by well described differences in subject personality or behavior.

In Table 3, we have grouped the primary labels into three categories by perceived level of specificity, and within levels, into clusters that appear to be semantically related. As can be seen from this table, certain primary labels occur more frequently in one group of journals than another. While much similarity in usage is found in the special education and psychology journals, where authors commonly use generic and specific category terms, authors in the behavioral psychology journals tend to use specific category or behavior cluster labels. This distinction in usage seems relatively clear cut, giving a face validity to our decision to categorize that group of journals separately.

VERBAL DEFINITIONS OF PRIMARY LABELS

Most authors of the articles reviewed did not provide formal verbal definitions of the primary label they used to describe their subject population, nor did they refer to a formal definition elsewhere. Only a few described the specific characteristics of their population or gave a brief verbal definition of the primary label's meaning for their research. Except for these few, the authors apparently assumed their readers already possessed a definition of the label they employed. Of course, all of us do believe we "know" what a writer means by "emotionally disturbed" or "behavior disordered." But, it is hard to see how a science of special instruction can be based on loose consensual definitions.

Here is an example of one of the more specific comments: Lobitz and Johnson (1975) use the primary label, "behavior problems," but go on to describe their subjects as "exhibiting aggressiveness, destructiveness, disobedience, hyperactivity, temper tantrums, . . . and high rate behavior such as yelling, crying, smart talk or demanding attention" (p. 354). An example of the brief verbal definition is Hewett, Taylor and Artuso's (1969) description of their "emotionally disturbed" students as "socialization failures." These are only small steps, but in the right direction. At least these authors recognized the limitations of undefined primary labels.

While in most of the definitions, at least the "disturber" and "problem behavior" elements mentioned in our introductory remarks occur, the terms used are quite general. The "setting" and "disturbed person" elements are usually missing from the verbal definitions, although "setting" occurs frequently as part of the operationalization of definitions, a point to be discussed in detail later. Our conclusion is that the quality of verbal definitions in the research literature we surveyed is poor.

To underline this criticism, and illustrate how our verbal imprecision leads to sloppy communication, let us discuss one instance in some detail. The primary label in this case is "disruptive," a descriptor that we have categorized at the "most specific" end of our continuum under the heading of "behavior cluster." The article, by Barrish, Saunders, and Wolf, appeared in the *Journal of Applied Behavior Analysis* (1969). In this case, an entire regular education classroom of fourth graders is described as "disruptive," but the authors add an important specific comment: Two of the

24 students in the class who had previously "been referred to the principal on a number of occasions for disruptive behavior" (p. 123) were dropped from the group contingency program because their excessively disruptive behavior was felt to be unfairly penalizing the rest of the class. This important qualification of the definition of the population ("disruptive, but not *that* disruptive") is not mentioned in several reviews of the literature on methods for working with students with problem behavior (Givner and Graubard, 1974; Haring and Phillips, 1972; Hewett, 1972) although noted by others (Blackham and Silberman, 1975). Such loss of significant detail during the transmission of information with the unqualified primary label becoming more salient is a well documented memory phenomenon. This particular case is cited here because it helps remind us that simply the use of more specific primary labels will not solve our basic problem.

OPERATIONAL DEFINITIONS OF PRIMARY LABELS

The formal description of the operationalization of a definition was presented in an introductory chapter and will not be repeated here. Basically operationalization requires the description of the measuring instruments and procedures for using them through which subjects or phenomena are classified under our chosen verbal definition. Just as there can be more than one verbal definition for the same referent, there can be more than one operational definition for the same verbal definition. The possibilities for either divergence or overlap are numerous.

All the studies reviewed provided some form of operational definition for the primary label used. Indeed, many authors appeared to assume that the provision of an operational element in their definition perfected the verbal definition, a faulty assumption from our viewpoint, especially when many of the operational definitions are circular.

A good operational definition provides the reader with an understanding of how subjects were selected for the study and how a similar group of subjects could be selected if the study were to be replicated. We have grouped the methods of subject selection used in the studies reviewed into four clusters. In terms of their frequency of occurrence, authors defined the subjects as representatives of the primary label used on the basis of:

- 1) being in a *setting or program* for children designated by the primary label,
- 2) being *nominated or referred* to the study as children representing the primary label (with no additional definitional or diagnostic criteria applied),
- 3) being *rated* by one or more nonclinical persons on characteristics or symptoms with the primary label based on the clustering of those rated characteristics,
- 4) being *clinically diagnosed* as representing particular psychological symptomology or being grouped along these dimensions, or being referred as being representative of the primary label with specific diagnostic criteria applied to validate the label.

To avoid possible confusion, the reader should note that the focus of this discussion is on subject selection. A student's original placement in a

program for "emotionally disturbed" children may have been based on a professional diagnosis following referral by a teacher, parent, of some other person, but if his or her inclusion in a study population resulted only from his enrollment in the program, then inclusion was considered to be based on "setting or program." If, however, the subjects were part of a group attending a state hospital school who had been nominated for the study because of their "highly disruptive behavior," the criterion for inclusion was considered "nomination or referral," since that was the procedure that led to their inclusion in the study population.

As can be seen in Table 4*, choice of a given primary label was not always followed by choice of the same operationalizing procedure. Substantial differences do still occur, however, between articles in the special education/psychology and in the behavioral journals in the choice of defining procedures, just as a pattern was found in the choice of the primary labels themselves. This is most readily seen in the setting/program and nomination/referral columns, the only two of the four methods where more than one behavioral journal study is represented. The tendency toward use of specific category and behavior cluster definitions in those journals is complemented by a tendency to use setting/program and nomination/referral as the operationalizing element. For example, in 9 of the studies included in special education/psychology reports, the population was described by generic primary labels which were operationally defined by nomination/referral procedures; only 2 used this operationalizing procedure in conjunction with a specific category label. In contrast, 10 studies in behavioral journals combined use of a behavior cluster primary label with definition by a nomination/referral procedure; only 2 used it with a generic or specific category label.

We could continue along this line of discussion, but although it provides us with an interesting demonstration of the failure of differences in subject selection procedures to match the differences noted in the choice of verbal labels, it will not help us much in our effort to find definitions that will be more meaningful and useful for research in our field. A more careful look at how the four methods were employed may help us more in that regard.

OPERATIONAL DEFINITION BY SETTING/PROGRAM

As Table 4 shows, the two most common procedures for defining who was to be included in a population were setting/program placement and nomination/referral. Together they were used in 80% of the studies. We will discuss the use of setting/program first.

It has already been pointed out that setting/program is used as the operational definition for primary labels ranging from generic category to behavior cluster. The procedure used in all cases is quite similar, one of the "circular" definitions that plague us in education and psychology. The "emotionally disturbed" or "behaviorally disordered" subjects in our population are those students enrolled in classes, schools, or institutions

* Because the choice of primary labels in special education and psychology journals was very similar, those two categories have been combined in this table.

Table 4

Categories of Primary Labels by Method of Subject Inclusion

	Setting/Program		Nomination/Referral		Behavior Rating		Diagnosis		
	SpEd/Psyc	Behavioral	SpEd/Psyc	Behavioral	SpEd/Psyc	Behavioral	SpEd/Psyc	Behavioral	
Generic category	100% (17)	38% (3)	69% (9)	8% (1)	71% (5)	100% (1)	80% (4)	0	40 63%
Total	80% (20)		40% (10)		75% (6)		80% (4)		
Specific category	0	50% (4)	15% (2)	8% (1)	29% (2)	0	20% (1)	0	10 16%
Total	15% (4)		12% (3)		25% (2)		20% (1)		
Behavior cluster	0	13% (1)	15% (2)	83% (10)	0	0	0	0	13 21%
Total	4% (1)		48% (12)		0		0		
	17	8	13	12	7	1	5	0	
	25 40%		25 40%		8 13%		5 8%		63 100%

for "emotionally disturbed" or "behaviorally disordered" children or youth. The institutional placement certifies the label. As one would expect, study of the internal evidence available in the studies suggests that the subjects thus selected, regardless of their labels, are discrete populations rather than samples of a larger population. However, since this internal evidence is not organized to clarify the meaning of the primary label, inference from it about the specific characteristics of the populations studied is partly speculative. Here are some examples.

Martin, Burkholder, Rosenthal, Thorp and Thorne (1968) reported a study of subjects who were adolescents with "extreme behavior problems" (primary label) who had been excluded from the regular school and placed in a special program. The operational definition is thus setting/program placement. The authors report that the students' "collective misbehavior included fighting, truancy, disobedience, sexual promiscuity, thieving, temper tantrums and specific infractions of school rules" (p. 372). We do not know whether all students exhibited all of these behaviors nor which of them were being exhibited in the special setting. On the average, the intervention introduced improved the group's work behavior and reduced its disruptive behavior, but careful reading reveals that three of the nine subjects maintained relatively high rates of work behavior and low rates of disruptive behavior *throughout* the study. Apparently the operational definition of the primary label by setting/program led to the inclusion of subjects whose behavior in this setting does not appear to fit the label.

In another study, Rickard, Melvin, Creel and Creel (1973) reported the effectiveness of a "remedial education program developed within the framework of a therapeutic summer camp." The primary label used was "behaviorally disturbed." The authors state that the subjects had been "referred for a variety of problems" including "withdrawal, depression, overdependence, anti-social behavior and school failure" (p. 379). We do not know whether any of the behaviors were shown in the camp setting or which subjects showed them. Several treatment conditions are described and related results reported. Did the subjects with "a variety of problems" all respond in the same way? We do not know. All they had "in common" was being in the same setting at the time they were chosen for study.

Operational definition of primary labels by setting/program alone is not satisfactory. Almost any setting includes individuals whose behavior is highly variable, and this variability is not adequately accounted for in the group studies reviewed. Setting/program placement may be an appropriate first step for an operational definition of disturbed/disordered behavior, but more information about subject characteristics should then be added. For example, Dietrich (1976) studied institutionalized juvenile delinquents, but she further specified the characteristics of her selected subjects through ratings on the Quay-Peterson Behavior Problem Checklist. This idea will be discussed further later in this paper.

Variability of behavior within settings is not the only problem with the use of this method. Browne (1975) provided evidence of the differences in the "emotionally disturbed" children enrolled in three different special settings in Massachusetts.

The three settings Browne compared were private residential schools, private day schools and public school programs for children with emotional disturbance. In this research statistically significant group differences were found among these groups of entering students in I.Q., academic achievement, socio-economic status, geographic location of domicile and total score of the Rutter Child Behavior Scale. Perhaps most important, however, was substantial and highly statistically significant disparity among the groups in terms of clinical diagnosis, categorized according to the American Psychiatric Association Classification system. In his analysis Browne found public school programs had much higher proportions of children with "behavior problems" (conduct disorders), while residential schools had higher percentages of children with "personality disorders" and private day schools tended more often to have students labeled psychotic. A subject population from one such setting might differ in important ways from one taken from another.

The setting/program procedure can be criticized as one where the choice of subjects is determined more by convenience than by the requirements of adequate definition. Unfortunately, this criticism also applies to the nomination/referral method of operational definition which tied setting/program as that most commonly used in the studies reviewed.

OPERATIONAL DEFINITION BY NOMINATION/REFERRAL

In many studies, subjects are gathered into the population defined by the primary label because a nominating or referring person says it appropriately characterizes them. The problems noted in using setting/program as the basis for operationalizing a definition apply here also. In a sense, these are students who might have been placed in a special program other than the study on the basis of the nomination/referral. Or, to put the same point differently, subjects in a particular defining setting/program got there in many cases through a nomination/referral procedure.

Some differences were noted, however, in the primary labels attached to nominated/referred subjects in the two groups of journals in Table 4. Only thirteen (31%) of the articles in special education/psychology journals selected subjects on the basis of referral while twelve (57%) of the behavioral journal articles used this method, making it the most common procedure used in those articles. In 83% of the behavioral journal articles, children were described under behavior cluster primary labels rather than more general terms, whereas 69% of the special education/psychology articles used a generic categorical descriptor as the primary label. Differences in primary label are not automatically associated with differences in operational definition of the label used.

One aspect of the nomination/referral procedure deserves special comment because of our sensitivity to the implications of unnecessarily labeling students. To what extent do researchers solicit the labeling of children when requesting nominations? Compare these two studies, in both of which the referral procedure was used in the definition of the population. Cotler, Applegate, King and Kristal (1972) attempted to reduce "disruptive" behavior among students of a state hospital school whose disruptions

included "fighting, swearing, throwing objects and running about class." Herman and Tramontana (1971) reported on interventions used with "disruptive" five and six year-olds whose disruptive behaviors were talking and not staying on their mat during rest-period. Would the staff responsible for the management of both these groups of students have had the same likelihood of seeking assistance if referrals had not been solicited? Or are the differences solely a function of setting differences in tolerance for "disruptiveness."

As in the case of the setting/program method, the nomination/referral method for operationalizing the definition of the primary label is a good first step in population description, but in the authors' judgment, it is not adequate in itself.

OPERATIONAL DEFINITION BY RATING SCALE

Behavior rating scales were also used to select children for the subject population in some studies. This method was used in seven articles reviewed, four from psychology journals, two from special education journals, and one from a behavioral journal. In addition, some form of rating procedure was used as a measure of change (dependent variable) in 13 other studies. Our discussion will address only the studies in which a rating scale procedure was used in operationalizing the primary label definition.

Use of a rating scale for population definition is a refinement of the nomination/referral procedure. Here, all nominators are responding to the same descriptors, and in the aggregate, providing a picture of the students in the population. The rating scale procedure requires that a rater (usually a parent, teacher, or school psychologist) indicate the degree to which words or phrases describing commonly used symptoms of children's psychopathology or behavior disorders are characteristic of the child being rated. The rating of the subject is then compared with those of a normative sample of children. For some rating scales, subscales have been developed based on factor analysis of the ratings given the normative group or special populations. One of the best known of these scales is the *Behavior Problem Checklist* (Peterson, 1961; Quay, Morse & Cutler, 1966). Among the studies reviewed, three (Dietrich, 1976; Dean, 1977; O'Leary & Schneider, 1977) used this scale for determining which subjects would be included or the nature of problem each subject represented. Other formal rating scales used were the Walker Problem Behavior Identification Checklist (Walker, Hops, and Johnson, 1975) and the HML (Durlak, 1977), although others have been used in research not reviewed here.

Rating scales have reliability and validity problems that reduce their usefulness as measures of behavior change or for assessment preceding intervention. But, they retain some usefulness as standardized general tools for describing behavior. That some of the better known scales yield similar principal factors when factor analyzed and show moderate to high inter-correlations encourages the authors to feel that their use in the definition of subject populations would facilitate communication among researchers and consumers of research. We will return to discuss their possible use in this regard later.

OPERATIONAL DEFINITION BY CLINICAL DIAGNOSIS

Only five studies in the sample reviewed included subjects on the basis of the application of the primary label by a mental health professional following a clinical diagnosis. In each case, the primary label applied is of the type we have called generic category — "emotionally disturbed" or one of its variants. Of these five studies, four are descriptive in nature, i.e., what was studied is the characteristics of the population defined by the diagnosis rather than their response to an intervention.

Besides the five studies mentioned, clinical diagnosis of subjects were also reported in three studies reported in behavioral journals. Here, the diagnosis was not used to select the subjects or to apply the primary label in any of these three cases so they are only indirectly relevant to our discussion. In one case (Santogrossi, O'Leary, Romanczyk, and Kaufman, 1973), the authors seem to use the term "clinical population" as a synonym for their primary label, "disruptive behavior," as when they conclude "the present study should alert behavior modifiers that caution is clearly indicated when one wishes to implement self-evaluation or self-reinforcement procedures with clinical populations" (p. 286). The fact that the students had been clinically diagnosed probably led the authors to use this label, although the specific meaning of "clinical population" is not made clear and the characteristics of the subjects which made them unresponsive to self-reinforcement procedures are not reported.

The problems with the use of clinical diagnosis as the method for defining a subject population relate to its frequently non-specific meaning and its cost. Its significance derives from the authority vested in clinicians rather than from any comprehension by the reader of what the term means. While it is conceivable that a clinical diagnosis could contribute more to the definition of the subject population as "emotionally disturbed" or evidencing "adjustment reaction of childhood," the additional information is not used by researchers in the articles we reviewed. Reference to the use of this method seems to the authors to be slightly superior to reliance solely on setting/program or nomination/referral, because the role of a "labeler" is made more clear, but as used it cannot be recommended as a general procedure. The cost/benefit ratio appears quite unfavorable.

OTHER VARIABLES MENTIONED IN DEFINING SUBJECT GROUPS

The literature on school-aged children with behavior problems includes occasional references to other variables that could be used in more accurately defining samples in research reports: age, sex, intelligence, and academic ability. The authors will not discuss these characteristics in greater detail in this paper although Lakin has discussed them in an unpublished manuscript (1979).

DESCRIPTION OF CONTROL OR COMPARISON GROUPS

As might be expected, when the research reported used contrast group designs, the descriptions of control or comparison groups have the same problems as the descriptions of the experimental groups. The full

power of such designs will not be realized until all groups relevant to the findings are adequately described.

CONCLUDING COMMENTS

Our intent when we began our review was to seek out examples of good practice that could serve as models for the field. We have ended our review somewhat discouraged. For almost every study reviewed, the answer to our original questions were negative. Populations were not well defined. When definitions were similar enough verbally to encourage generalization across studies, a closer look often showed that the similarity was actually quite superficial. Articles using definitions based on setting/program placement or nomination/referral were often so lacking in more detailed descriptions of subject behavior as to permit a variety of interpretations by individual readers. Where procedures for operationalizing definitions were mentioned, they were so poorly described that replication would be impossible. Continuation of such practices seems unlikely to advance our field very rapidly.

The authors have some ideal solutions in mind, but rather than making recommendations that are unlikely to be adopted, we will content ourselves with more modest proposals. As long as journals continue to publish studies with inadequately defined populations, we suspect that few researchers will be motivated to adopt procedures requiring major additional expenditures of time or effort. To have a chance of being implemented, proposals must be modest.

The first of our suggestions is that greater use be made of rating scales to provide more comparable descriptions of groups of subjects. Achenbach and Edelbrock (1978) have recently made a similar suggestion. The problem is which scale to recommend. A review of existing scales shows much overlap, but the authors seem to work very independently of one another. Achenbach and Edelbrock, for example, are seeking to develop a scale that will improve on those already available. Rather than seeking to create a "superior" scale ourselves, we will be satisfied if researchers make better use of one of the more widely known rating scales currently available. "Widely known" as used here means "readily available to most readers of the research report in which it is used." A complete bibliographical reference should be sufficient.

Rating scales have a number of qualities which recommend them as a means for improving the description of subject groups. They are not difficult to use, most having been developed with use by teachers and parents in mind. They are relatively cheap. As descriptive instruments, they have good face validity. A measure of criterion validity has been independent diagnosis by mental health clinicians. Considerable content validity seems indicated for at least such broad cluster categories as aggressive and withdrawal behavior (Achenbach and Edelbrock, 1978).

Reliabilities vary with conditions (Achenbach & Edelbrock, 1978, p. 1288). Many authors report internal consistency coefficients in the .90's. When reported, the range of interrater reliabilities is .70 to .80 for parents or teachers, figures that could probably be increased by supervised practice as is done in teaching other observation skills. As might be expected,

correlations between ratings of different raters in different settings are lower (.30 to .50) but still account for appreciable variance. These reliabilities support the cautious uses recommended here.

At the simplest level, information about subject group means and variabilities for the basic behavior clusters (sub-scales) of the rating scale used would better define the population for the reader. But, other uses also can be recommended. Rating scale data serves to support (or qualify) subject categorization on the basis of nomination/referral or setting/program. Subjects nominated because of "acting-out," "aggressive," or "disruptive" in one setting should be rated high on those characteristics by raters who observe them in the situation where their behavior is being studied. References to rating scale data may then clarify why some subjects are dropped from the population as "deviant," for example, "too disruptive" or "not disruptive enough."

As we experiment with their usefulness in population description, we may find ways to improve rating scales. For example, Kauffman (1977, p. 34) has suggested that the Quay-Peterson scale could be improved if the "severity" dimension were extended. Another change might be to seek to differentiate between descriptors referring to observed behavior and those referring to inferred behavior such as thoughts and feelings. Most rating scales seem to contain some of both. Yet another possibility is to explore the usefulness of rating profiles. Some efforts have been made in this direction and the writers know from personal experience that only a rare student is "purely" withdrawn or aggressive in type. Finally, better norming of existing scales could improve their usefulness to us.

Although we suggest these as possible refinements, we want to reiterate our earlier statement. Much can be gained by making better use of what we have right now. It is not necessary to await the outcome of efforts to improve on existing rating scale procedures.

Our second suggestion may appear to be addressed particularly to behavioral psychologists. Behavioral designs have proved highly useful in evaluating special education interventions (Slavin, 1978). The methodology of time series designs is being steadily developed, particularly where single subjects are concerned. The time seems ripe to plan multiple N:1 studies in a framework that will facilitate intragroup and, perhaps, even intergroup comparisons. Hersen and Barlow's (1976) discussion of this and related topics is highly recommended. These approaches may help us develop valid generalizations about educational interventions useful with behaviorally disturbed and disordered populations. As we noted, this suggestion may appear to be addressed primarily to behavioral psychologists, but we feel that the research methodology described by Hersen and Barlow has applications to the testing of hypotheses generated from any theoretical perspective.

These do not seem like very ambitious proposals. Nonetheless, the procedures used to define subject populations revealed in our review of the literature are so inadequate that greater use of comparable ratings and attention to the characterization of subjects with whom a given intervention procedure is not successful would, we believe, enable special educa-

tion researchers to communicate much more successfully. At present, we are deceived if we think we know about whom it is that most authors of research reports are writing. Whether they call their subjects "emotionally disturbed" or "behaviorally disordered" seems to be beside the point. More than superficial semantic changes are needed, but useful beginning need not be expensive in time or dollars if we make better use of what we already know.

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AN HISTORICAL PERSPECTIVE ON DISORDERED BEHAVIOR AND AN ALTERNATIVE CONCEPTUALIZATION OF EXCEPTIONALITY

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In casting about for a way to begin this paper I reread a statement made by Bockoven in his history of moral treatment in American psychiatry. His comments provide a succinct introduction and summarize one of the major points I want to make:

As so often happens in science, recently acquired perspectives turn out to be a more precise form of very old perspectives which were left undeveloped. Those who have come to rely on certain habits in giving service, who are not actively engaged in research, and who no longer preserve an open mind in areas in which their own habits come into question, naturally resist accepting the new and devalue it on the grounds that it was "old stuff" long ago and "nothing came of it" (1956, p. 138).

My point is that a lot of the "old stuff" was actually pretty good and something *has* come of it. It has provided the foundation for and is largely congruent with our current thinking. Admittedly, some of the old stuff was trash and continues to clutter our thinking.

Because of our tendency to dismiss the past notions of our professions as outmoded and unhelpful in understanding the present, several misconceptions about children's behavior disorders have become rather well established in the current literature. Among them are the ideas that behavior disorders in childhood were almost totally unknown, unrecognized, unexplained, undefined, and undifferentiated from other exceptionalities and from behavior disorders of adulthood before the days of Leo Kanner, whereas today we have a clear conception of what children's behavior disorders are, we clearly describe them, understand them, distinguish them clearly from other exceptionalities, and distinguish them clearly from disorders of adults. I do not mean to villanize those who have given impetus to or perpetuated these misconceptions. Neither do I intend to take the position that no progress has been made and that our understanding of children's behavior disorders is no more advanced than it was 100 years ago. We have made progress — but less progress, I think, than we would like to believe.

This paper was prepared while the author was on leave as a Sesquicentennial Associate of the Center for Advanced Studies at the University of Virginia and a Postdoctoral Scholar in Special Education at the University of California at Los Angeles under a grant from the Bureau of Education for the Handicapped, DHEW, USOE.

I have two major objectives in this paper. My first purpose is to present some arguments against the prevailing misconceptions I have just mentioned. In doing this I will be comparing contemporary ideas with those of the past, including ideas prevalent in the nineteenth century. (For further elaboration see Kauffman, 1976, 1977.) My second purpose is to offer an alternative conceptualization to current views of behavior disorders. The alternative I will suggest is derived from social learning theory, particularly the notions of Bandura (1977, 1978) and Mischel (1973). It is not an entirely new view, certainly not a radical one. It represents my attempt to make some conceptual sense not only of behavior disorders but of exceptionality in general.

AN HISTORICAL PERSPECTIVE ON CONCEPTS AND ISSUES

It would be a serious oversimplification to suggest that there are no differences between our current concepts and methods of dealing with behavior disordered children and the concepts and methods of other eras. Ideas ebb and flow, knowledge accumulates, methods of dealing with problems become fashionable and are discarded, social and economic conditions change, and our language reflects the changing times. Yet there is a constancy to the problems of living, being a child, and rearing children. And there is more than a mere thread connecting our current concepts to those of the last century. We are connected to the progenitors of special education and related disciplines by problems that are persistent and ideas that have changed but little. I will briefly comment on a few of these enduring problems and notions.

MEDICAL AUTHORITY

Today we are, unfortunately, heirs to a history of control by the medical profession over how disordered behavior is defined, who is considered to have a behavior disorder, and how behavior disorders are dealt with when they are manifested in children and adults. True, some nonphysicians have helped to shape treatment of the "mentally ill," but in our society psychiatrists have had and continue to have a monopoly on definition, classification, diagnosis, and treatment. Our language reflects the fact that authoritative opinion interprets disordered behavior as a disease requiring medical treatment: We still speak of "mental illness," "mental health," "symptoms," "diagnosis," and "therapy." A major professional group made up mostly of nonphysicians decided to call itself the "Association for Advancement of Behavior Therapy," not the "Association for Advancement of Behavior Change," "Behavior Modification," "Behavior Analysis," "Behavior Learning," or something else without medical overtones. In special education we speak of "diagnostic-prescriptive" teaching and "educational therapy." There is even a journal called "Academic Therapy."

Medical control over disordered behavior did not begin in the twentieth century. Scull (1975) has traced "... just how that segment of the medical profession which we now call psychiatry captured control over insanity; or, to put it another way, how those known in the early nineteenth century as

mad-doctors first acquired a monopolistic power to define and treat lunatics" (p. 218). Although physicians never have been able to demonstrate a physiological etiology for the vast majority of behavior disorders or to demonstrate the effectiveness of medical treatment of them, it is still the psychiatrist's opinion that prevails. As Scull commented:

Just as in the case of bodily illness, where a profession is granted the authority to label one person's discomfort an illness and another's not, so too with mental distress, the psychiatrists possess the ultimate power to assign one person to the status of being mentally ill, and to refuse the designation to another. And it is contact with society's official experts in this area, rather than manifestations of specific behavioral or mental disturbance, which most firmly and legitimately affixes the label in the eyes of the layman" (pp. 220-221).

The fact that our current definitions and classifications are still predominantly under medical control was criticized recently by Prugh, Morse, and Engel (1975). Some of their major objections were that the systems of classification devised by the American Psychiatric Association, the World Health Organization, and the Group for the Advancement of Psychiatry, for example, were devised by physicians and have official status only for physicians. Prugh, Morse and Engel (1975) also indicated that, while current psychiatric classifications have serious limitations, they are extremely resistant to change; furthermore, definitions and classifications should not be controlled exclusively by any one discipline. Clearly, new conceptualizations of children's behavior disorders are needed, conceptualizations which can provide rational guidance for intervention by a variety of child-care professions. Medical domination of our thinking about behavior is one of the old ideas that we can safely and profitably discard.

ADULTHOOD VERSUS CHILDHOOD DISORDERS

It has been common to assert that "Before the turn of the century, the child, for psychiatry, was merely a miniature mirror image of the adult" (Rubenstein, 1948, p. 314). Even if this assertion is accepted as correct (and it is not), it is difficult to argue that current definitions of children's disorders represent significant improvement over those of the nineteenth century in terms of the adulthood-childhood distinction. It is well recognized that current nosological systems for children are inadequate, scaled-down versions of those devised for adults (Phillips, Draguns, & Bartlett, 1975; Prugh et al., 1975). Examination of the third edition of the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-III, APA, 1978) is instructive regarding how little progress has been made in differentiating childhood from adulthood disorders. One notes that the same multi-axial framework is used for children and adults. Adults may be, in some cases, classified under one of the categories specified for children and adolescents, and children and adolescents can be classified under one of the categories for adults. In fact, the manual states that "A child or adolescent should only be given a diagnosis from this [childhood or adolescence] section if no appropriate diagnosis is available from other [i.e., adulthood] sections of this manual" (p. M-1). Thirteen disorders are

then listed that, although they are listed elsewhere, often apply to children and adolescents. Four disorders listed under childhood or adolescence are said to have a corresponding adult category: "conduct disorder," "introverted disorder of childhood," "shyness disorder," and "overanxious disorder" listed under "Disorders Usually Arising in Childhood or Adolescence" correspond to the adult categories of "antisocial personality disorder," "introverted personality disorder," "avoidant personality disorder," and "generalized anxiety disorder" respectively (p. M-2). It is, I think, reasonable to ask whether such confusion and overlap between childhood and adulthood categories based on a psychodynamic model represent significant progress beyond the child-adult distinctions made by such early nineteenth century writers as Esquirol (1845).

Certainly, the developmental characteristics of childhood must be taken into account when defining childhood disorders. However, it is worth considering, too, that the constant lament regarding the failure to distinguish clearly between disorders of childhood and those of adulthood is a lament based on what may be a false premise; namely, that there is greater discontinuity than continuity between the problems in living experienced by children and adults. One might make a case for the position that, while children are not miniature adults, the same basic principles of behavior apply equally well to youngsters and oldsters and, consequently, children's and grown-ups' behavior often becomes disordered in much the same way. A developmental perspective does not negate the fact that children and adults are part of the same human race and are prone to some of the same and many similar difficulties.

IMPORTANCE OF EARLY EXPERIENCE

Interest in early experience as a contributing factor in children's misconduct or other aberrant behavior is often thought to have arisen only after Freud started talking and writing about psychodynamic ideas and, especially, his theory of infant sexuality. On the contrary, early nineteenth century writers emphasized the role of early child training, schooling, and early traumatic experience (Bockoven, 1956). In the case of juvenile delinquency, Rothman, who has written an award-winning history of American asylums, stated:

The Jacksonians' conception of the causes of crime had an obvious and precise relevance for understanding juvenile delinquency. The child offender, no less than the adult one, was a casualty of his upbringing. The importance of family discipline in a community pervaded with vice characterized practically every statement of philanthropists and reformers on delinquency. Both mature and immature offenders were victims of similar conditions. Not that Americans, insensitive to an idea of childhood, unthinkingly made children into adults. Quite the reverse. They stripped the years away from adults, and turned everyone into a child. (1971, p. 76)

It was believed in the early nineteenth century that poor early environmental conditions could (but did not necessarily) lead to disorders in adulthood, although early negative experience could often be offset by a corrective environment. These ideas do not contradict much, if any, current theory and research.

OTHER CAUSAL FACTORS

In the first half of the nineteenth century most of the medical superintendents of asylums took the position that physical disease or trauma could, but did not necessarily, cause disordered behavior. Physical factors were assumed to be possible contributing causes. Aberrant behavior was not assumed to be inherited (see Rothman, 1971). However, during the latter part of the century there was increasing confidence that insanity and related mental defects would be found in all cases to have a biological basis in neural pathology or genetic transmission. During the Jacksonian era as described by Rothman (1971), the importance of family and school factors, the role of environmental stress, and the interaction of temperamental traits (i.e., inborn biological and behavioral characteristics) and environment were emphasized. Thus, most or all of our contemporary ideas regarding definition and classification based on causal factors are antedated by over 150 years.

DSM-III recommends that disorders of children and adults be evaluated along each of five axes. One of the axes is "physical disorders," the assumption being that physical disease or impairment may be relevant in understanding the origin of the behavior disorder and/or important in its management. Another of the axes is "psychosocial stressors." Included on this axis are such things as "conjugal," "parenting," "other interpersonal," "occupational," "living circumstances," "financial," "legal," "developmental," "family," and other factors which may be contributing to the cause of the disorder or exacerbating it. It is easy to see direct parallels between the nineteenth century ideas that "pecuniary embarrassment," "mortified pride," and "disappointed love" were possible causes of insanity (cf. Jarvis, 1852; Stribling, 1842) and the current ideas that "problems at school," "marriage," "cold or distant relationship between parents," and "inadequate finances" are possible psychosocial stressors contributing to behavior disorders (cf. American Psychiatric Association, 1978, pp. 2:4-2:5). Our present-day language is slightly different (perhaps less graceful) and our classification system is more complex, perhaps reflecting the greater complexity of contemporary society and research of its effects on individuals. Nevertheless, the basic concepts regarding what goes wrong and manifests itself as disordered behavior have changed very little indeed. What is needed to bring clarity to the problems of definition and classification is not the identification of new causal factors but, rather, a consistent and empirically-based view of how causal factors are interrelated in the origin of disordered behavior.

DISTINCTIONS AMONG CATEGORIES AND LABELS

Over a period of several years, Dan Hallahan and I have pointed out that in the nineteenth century, as well as today, distinguishing among various "diagnostic" categories of children has presented seemingly insurmountable problems (Hallahan & Kauffman, 1976, 1977, 1978; Kauffman, 1976, 1977). If there is confusion in trying to distinguish among learning disabled, mentally retarded, and emotionally disturbed children, there is chaos in trying to make clear distinctions among subcategories of

behavior disorders. The years have brought such a blizzard of confusing labels for behavioral difficulties, often with obtuse or idiosyncratic "diagnostic criteria" appended by their creators, that no one but a charlatan can seriously claim not to be "snowed." I will not chant the tired litany of labels that have come and gone, but I do want to point out one incomprehensible use of words that has special importance today.

The guidelines provided by the Bureau of Education for the Handicapped (BEH) include Bower's (1969) definition for the category of seriously emotionally disturbed. Bower's criteria include the following five: (1) An inability to learn which cannot be explained by intellectual, sensory, or health factors, (2) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers, (3) inappropriate types of behavior or feelings under normal conditions, (4) a general, pervasive mood of unhappiness or depression, and (5) a tendency to develop physical symptoms, pains, or fears associated with personal or school problems. Following the statement of Bower's criteria the BEH guidelines specifically exclude from the category of seriously emotionally disturbed any child who is "socially maladjusted but not emotionally disturbed." Given that "emotional disturbance" and "social maladjustment" are both very ill-defined terms and that Bower's criteria include disordered interpersonal relationships with adults and other children, one must rely upon the wizardry of psychiatric opinion to make the BEH guidelines comprehensible and applicable to the specific case.

A point worth making about labels is that their stigmatizing effects have been known since the days of lunatic asylums (see Rothman, 1971). Many people have used labels carelessly and slanderously, but among professionals there has always been an attempt to mitigate or eliminate the negative effects of the terms used to describe exceptionalities. No matter the twists and turns labelers have gone through to shake the stigma, it inevitably returns to attach itself to the exceptional and their names. A case in point is New York City's decision in 1946 to label schools for maladjusted and disturbed children by "600" numbers to avoid the stigma of a more obvious name, only to decide in 1965 to discontinue the "600" designation because it was stigmatizing.

It is obvious that if categories of exceptional children or behavior disorders are to be of much value they will need to be more clearly based on reliably observable characteristics than is now the case. They will also have to be related meaningfully to the selection of interventions. Substituting a currently neutral label for a noxious one appears to be, at best, a temporary restraint on stigma.

DIFFERENCE VERSUS DISORDER

It is sometimes believed that in the nineteenth century madness or insanity or lunacy was defined by some arcane process having little or nothing to do with its social context, whereas today we recognize the importance of judging behavior in terms of its socio-cultural setting and rating it on an axis called "severity of psychosocial stressors." But, as Rothman has concluded, in the first part of the nineteenth century "Psy-

chiatric theories . . . did not reflect the unhappiness of an alienated minority but the widely shared anxiety of antebellum Americans about the social order" (1971, p. 125). Behavior was to be judged not by some arbitrary and rigid list of symptoms or formula but by its significance in the life experiences of the individual. To be different, odd, or unusual (except in cases involving obvious delusions or total breakdown in ability to function) was not necessarily to be considered insane. Idiosyncracies were tolerated as part of the normal range of behavioral variability so long as they did not interfere significantly in the lives of others or significantly impair the ability of the individual to function in everyday life.

We are only a little more advanced in our thinking today. We recognize that difference alone does not define disorder (see, for example, Bower, 1969, p. 24). We speak of behavior interacting with its environment. We are adopting an "ecological" perspective which posits a "dynamic relationship between the individual and his unique set of environmental circumstances, at a particular period of time" (Hobbs, 1975, p. 113). The ideas of an interactional-transactional conceptual model have finally begun to take form in our definitions and assessment strategies, but there is clearly a long way to go to make these ideas a central and pervasive part of our thinking about exceptional children.

EARLY TWENTIETH CENTURY DESCRIPTIONS

Hoffman (1975) has written an excellent account of how, during the last quarter of the nineteenth century and until World War I, the American public schools began making attempts to deal with children variously described as "truant," "incorrigible," "vagabond," "antisocial," "wayward," "delinquent," and "behavior problem." After the Great War, there were new attempts to define such children in terms that would be meaningful to education. I would like to review a few of these definitions or descriptions because I think they are useful in helping us understand to some extent the conceptual territory we are crossing today.

In July of 1928 the Committee on Behavior Problems presented a report to the Subcommittee on Teacher Training of the National Education Association at its meeting in Minneapolis. The report was entitled "The Preparation of Teachers for Dealing with Behavior Problem Children," and it began with a quotation of a statement by Howard W. Nudd of New York City, chairman of the National Committee on Visiting Teachers. Visiting teachers or counselors were specially trained to deal with children and youth who had problems of adjustment. Nudd said:

Every teacher, every social worker, and many a parent is familiar with the problem child — the boy or girl whose school progress or whose reactions to normal requirements point toward later inefficiency, delinquency, or some other failure in personal or social adjustment.

What is the trouble with such children, and what can be done for them? How can the school obtain and utilize a knowledge of the forces that are affecting their success, and give them in fullest measure the benefits of their educational experience? Puzzles or pests at home, in school, or elsewhere, their personal welfare and the welfare of society require painstaking effort on their behalf. They cannot wisely be regarded as temporary nuisances,

whose present weaknesses a kindly fate will in some way heal with the balm of time, nor can they wisely be ignored without serious study and effort, as inevitable liabilities which society must expect along with its blessings. Tomorrow they will be citizens, for weal or for woe, and their shortcomings today, if left uncorrected, may have dire effects upon the character of their citizenship tomorrow. They present the most baffling, the most urgent, and the most interesting problems in the field of education. (NEA, 1928, p. 3)

On February 26 and 27, 1923, the first annual meeting of the International Council for Exceptional Children (ICEC) was held in Cleveland. The program included several presentations having to do with behavior disordered children. Elizabeth Farrell, first ICEC president, had the following comments on truancy in her presidential address:

The anti-social tendency suggested by truancy is one to which school authorities have already given some attention . . . Little thought has been given to the reason for this non-attendance. Perhaps this statement is a trifle broad. Perhaps a desirable modification would be to say that in the large majority of cases, non-attendance has been blamed upon the home. This attitude is changing. We are now beginning to blame non-attendance upon the school. There are to-day teachers who look forward to the time when school officials in all matters of non-attendance will question first the school opportunity given to the child. It is not too much to say that in a great majority of cases children are truant from school because the school they attend does not bring them the satisfaction of achievement which is necessary for each one of us to feel if we are to persist in the work at hand. (ICEC 1923, pp. 6-7)

At the same ICEC meeting in 1923, Elizabeth Woods, a clinical psychologist with the Wisconsin State Department of Public Instruction gave a presentation on "The Public School as a Factor in the Prevention of Juvenile Delinquency." She said:

It would be very easy to show how bad school conditions, ranging from unsanitary and unwholesome physical conditions in the school plant, to the curriculum itself, operate in case after case to produce restlessness, discontent, irritation, insubordination, truancy, and all the youthful misdeameans so often attendant thereon. It would be especially easy to show how teachers, ignorant of and unsympathetic with children's instincts and emotions, not infrequently fail ever to reach their minds, and so instead of being priestesses daily at the sacred ceremony of a child's mental unfoldment they are rather the pallbearers at a ghastly sort of living death . . .

In order . . . that the schools take their rightful place at the head of the banquet table of the World's Social Agencies Opposed to Delinquency, it is necessary that we find means of acquainting every teacher with the modern conception of delinquency as "maladjustment." Every teacher must be made to see that a child's behavior, whether it be good, bad, or insufferable, is the product, the inevitable end-result, of two things: (1) the native endowment of the individual, the sort of psycho-physical organism with which he made his entry into our world, plus (2) the experiences which life has given him. (ICEC, 1923, pp. 28-29)

At the same meeting in 1923 there was an address by Thomas D. Elliot, a sociologist from Northwestern University, on "Exceptional Behavior as a Primarily Educational Responsibility." His comments were directed

toward the probation system for delinquent youth as an educational enterprise (ICEC, 1923, pp. 43-53). Elizabeth A. Walsh, an assistant inspector of ungraded classes in New York City, gave an illustrated lecture on "Work with Neurotic and Psychopathic Children." She commented that "these are children who for reasons other than lack of intellectual ability do not get on well in the group to which they belong and often they are a source of emotional and economic waste" (ICEC, 1923, p. 54). Her lecture included descriptions of the "unrestrained neurotic" (i.e., acting out) and the "restrained neurotic" (i.e., withdrawn) type of child based on the writing of Guthrie. (The only mention of "psychopathic" children is in the title of her lecture.)

In the 1920's we see again, as one can observe in the literature of the early nineteenth century, a recognition of the facts that the school can contribute directly to the behavior problems of its pupils and that each child needs to be considered as an individual. By 1938, enough had been written about disordered behavior that a special issue of the *Journal of Exceptional Children* carried an article on "American Research Studies Concerning the 'Behavior' Type of Exceptional Child" (Baker & Stullken, 1938). The authors made special note of a problem that has persisted to the present day — confusion in terminology. "Behavior problem" covered such varied types of children as delinquents, nervous and emotionally unstable children (including some types of speech disorders), aggressive nondelinquents, and withdrawn or highly introverted children. Writers seemed merely to use the label "behavior problem" for whatever deviant group they chose to study and to exclude children from their definitions at will. Two other features of the Baker and Stullken article are particularly noteworthy. They observed that previous research had delineated two major subcategories of behavior problems: conduct disorders (i.e., aggression) and personality disorders (i.e., withdrawal). They also included two paragraphs of discussion under the heading "ecological" in their review of the social traits and backgrounds of behavior problem children. Thus the Baker and Stullken article anticipated, in embryonic form at least, the dimensional classification work of Quay (1972) and the ecological theory of Hobbs (1966) and Rhodes (1967).

Also in the 1930's J. E. Wallace Wallin wrote an article for the *Journal of Exceptional Children* in which he posited a reciprocal influence of the child's behavior and the school environment in the problem of truancy. He stated:

Although truancy frequently must be interpreted as a *symptom* of personality maladjustment, often due to difficulty of adaptation to the social environment, it may also become a *source* of personality maladjustment and character distortion. Truancy is both a result and a cause of personality maladjustment, just as mental backwardness is an important source of non-attendance, and non-attendance in turn is an important cause of educational backwardness. (1938, p. 2)

In the 1940's, the behavior problem child was described by some writers more as a source of the problem than as a product of a malevolent environment. J. H. Williams, also in an article in the *Journal of Exceptional Children*, stated:

The behavior problem child is a social rebel. Being unable, or unwilling, to develop action patterns which are made normal by convention and majority acceptance, he makes patterns of his own, often to the distress and inconvenience of his chronological superiors. (1944, p. 195)

Finally, an example from mid-century shows that by that time the term "socially maladjusted" had taken firm hold in the minds of school authorities. In 1950, the National Society for the Study of Education published its first (and, to date, only) yearbook on the education of exceptional children. Edward H. Stullken contributed a chapter on special schools and classes for the socially maladjusted in which he said:

One method of defining social maladjustment on the part of an individual is to think of it in terms of adequate or inadequate behavior. When a child's behavior does not interfere with his personal growth or with the lives of other people, we may consider that behavior adequate. When the behavior, such as extreme daydreaming, interferes with his learning and interpersonal relations, or when it interferes with the lives of others, in the case of bullying or stealing, we consider it inadequate behavior, or a type of social maladjustment. (1950, p. 282)

You may note that I have deliberately avoided discussing psychiatric definitions offered before 1950. I have done so not just for the sake of economy but also because we are concerned here primarily with school-related definitions, because psychiatric definitions tend to focus on psychodynamic concepts that are of limited value to educators, and because the people who wrote psychiatric definitions before 1950 tended to be preoccupied with identifying particular types of children, such as the autistic, schizophrenic, symbiotic, atypical, and so forth.

Suffice to say that in the 1950s definitions and descriptions of behavior disordered children for special education purposes usually reflected much of the cumulative wisdom of the past hundred years; that is, it was recognized that a child's social and emotional behavior had to be judged in terms of environmental expectations and the child's responses to them.

CURRENT DEFINITIONS

Since the early 1960s a great many different definitions have been offered (e.g., Bower, 1969; Graubard, 1973; Haring & Phillips, 1962; Kauffman, 1977; Kirk, 1962; Pate, 1963; Ross, 1974). There is consensus among the writers of the various definitions that disturbed children's behavior does not fit the expectations of their social environment. That consensus belies the complexity of the problem of definition and the diversity of opinion regarding the meaning of the child's deviant behavior. Rhodes and Paul have summed up the situation cogently:

Finally, perhaps one of the most difficult and illusory problems is the definition of the problem itself The epiphenomenal problem of deviance is complex and the definitions that exist are many. Each time a group of special children gain social and professional attention, a plethora of definitions of the problems of those children follow. The inconstancy is not, as is typically thought, simply in the definitions, but rather in the primary view of the world from which the definition is derived. (1978, p. 137)

It is fair, I think, to say that there is considerable dissatisfaction with present definitions and the world views they represent. This conference itself is some indication that a significant number of professionals are searching for better alternatives to our current thinking. Part of the dissatisfaction may derive from a lack of ability to tolerate ambiguity and confusion and a naive hope that some sort of ultimate truth about the nature of behavior disorders can be ascertained. Part, too, may derive from the observation that our current definitions seem to be serving only bureaucratic needs to count the number of bodies in particular categories and to maintain discrete diagnostic pools in the interests of professional identity. Finally, some of our dissatisfaction as special educators may derive from the fact that the conceptual content of our field is derived almost exclusively from persons trained in the disciplines of medicine and psychology. We have few ideas of any import that we can legitimately call our own.

AN ALTERNATIVE CONCEPTUALIZATION OF EXCEPTIONALITY

It is with considerable trepidation that I offer an alternative way of viewing the problem of children's behavior disorders. This is true for several reasons. First, I am suggesting that the important consideration is the definition of exceptionality in general, not just what we have been referring to as disordered behavior. That is, I have set myself up for a rather large undertaking. Second, my world view will be showing, and I realize that it is not spectacular or sexy. Attractive, I hope, but not flashy. Third, it is not really *my* world view, but an adaptation of the views of others. I hope it is not a bastardization. Fourth, if it has anything to recommend it at present, it may soon outlive its usefulness, like some of the ideas that have preceded it. That is, it is a set of working hypotheses.

Two major assumptions underlie the conceptualization I am about to describe. One assumption is that a coherent conceptual foundation is needed for *all* of special education, not just behavior disorders. Such a foundation should be based as far as possible on empirical research in child development. It should suggest continuity between normal child development and exceptional development. And it should be a guide to assessment and intervention. A second assumption is that our experience as special educators has demonstrated the utter futility of trying to achieve diagnostic purity. Almost 15 years ago, Trippe (1966) eloquently described our inability to make rational and reliable distinctions among special education categories and Rhodes (1964) questioned the basis for our separating disturbed from normal children. Consequently, I will suggest a way of looking at exceptionality that has very little, if anything, to do with traditional special education categories. The view I will suggest is based on social learning theory and is a way of looking at human development in general.

BASIC TENETS OF SOCIAL LEARNING THEORY

Bandura (1977, 1978) has outlined a theory of social learning in which three determinants are central: the individual's observable behav-

ior, the objective environment in which the individual behaves, and the individual's cognitions. As he explains:

Social learning theory approaches the explanation of human behavior in terms of a continuous reciprocal interaction between cognitive, behavioral, and environmental determinants. Within the process of reciprocal determinism lies the opportunity for people to influence their destiny as well as the limits of self-direction. This conception of human functioning then neither casts people into the role of powerless objects controlled by environmental forces nor free agents who can become whatever they choose. Both people and their environments are reciprocal determinants of each other. (1977, p. vii)

Consider, for example, a child who exhibits disruptive behavior in the classroom. Social learning theory suggests that it makes little difference where one begins in analyzing the nature of the problem, i.e., whether you begin with the child's behavior, the classroom environment, or the cognitions. All three of these facets of the problem must be examined, not as static entities in themselves but as reciprocal determinants of each other. The child's behavior (e.g., slamming books on the desk, loud cursing) will set the occasion for certain responses from the environment (e.g., teacher criticism, peer attention) and influence the way the child thinks about himself and his situation (e.g., as having fun, being picked on). The environment will be a stimulus for responses from the child, provide consequences for his responses, and affect the child's perceptions and expectations of it. The child's cognitions will influence how he perceives events in his environment and the responses he selects from his repertoire in a given situation.

Cognitive activity cannot be observed and recorded directly but must be inferred from observable responses and self-report. Behavior and its environmental antecedents and consequences can be measured directly and reliably, and these directly observable phenomena constitute indispensable data in social learning analyses. However, the behavioral outcome of specific antecedent and consequent events will be partially dependent on cognitive variables such as learner expectancies based on past experience, self-observation and self-reward or self-rebuke, and prior learning based on observation (i.e., vicarious learning). Obviously social learning theory has many of the characteristics of the ecological perspectives set forth by Hobbs (1966, 1975), Rhodes (1967), and others. That is, the individual is seen as being in continuous reciprocal interaction with his environment. However, Bandura's analysis is conducive to a fine-grained behavioral analysis in a particular environmental circumstance, whereas Hobbs' theory encourages a sociological analysis of the child's community and the child's role in it. Furthermore, while ecological theory tends to focus on the totality of behavioral exchanges among members of a community, social learning theory gives equal play to the individual's cognitions vis-à-vis his environment and behavior.

The last point — giving equal play to cognitions in reciprocal interaction with environment and behavior — is a controversial one with many behaviorists. Radical behaviorism may admit to thoughts and internal affective states, but these are seen as arising from a one-way causal conduit,

namely, environmental events. Cognitions are, for the radical behaviorist who admits of their existence, a covert instance of the way environmental events shape behavior, not entities that can make behavior happen. I have neither the time nor the acumen to defend social learning theory against the wiles of the radical behaviorist creed. I will simply say here that I believe persuasive arguments have been advanced for the case of cognitive factors in the determination of behavior (cf. Bandura, 1977, 1978; Kauffman & Hallahan, 1979; Mahoney, 1974; Meichenbaum, 1977; Mischel, 1973). Taking the basic tenets of social learning theory as useful explanations of human behavior, the next task is to extend the theory toward a useful conceptualization of exceptional development.

SOCIAL LEARNING AND EXCEPTIONAL DEVELOPMENT

What I offer here is a description or conceptualization of exceptionality. It is not a theory or explanation of underlying mechanisms, such as the nature of reinforcement. It is a model, derived from social learning theory, for thinking about how individuals develop and the dimensions of exceptional development. I should clarify, too, that in using the terms "development" and "developmental" I am not denoting the unfolding of behavior according to some inherent and invariable sequence of stages but rather to the usual course of learning that human beings follow. I simply do not know a better term for referring to age-related changes in behavioral complexity.

Bandura has provided extensive discussion of the reciprocal influence of behavior, environment, and cognition in behavioral outcome. Although much of the data on which he bases his social learning theory were derived from the study of behavioral anomalies in children and adults, he has not elaborated a view of how reciprocal determinism goes awry in the case of maladaptive behavior or suggested developmental changes in terms of his hypotheses. That is, he has so far confined himself to construction of the theory and defense of the basic tenets themselves. Perhaps it would be useful to extend the basic tenets Bandura has put forward to include the following hypotheses.

Hypothesis 1. Behavior (B), environment (E), and person variables (P: cognitions, perceptions, and other internal states) typically are reciprocally determined, but the reciprocal influence they exert on each other is a matter of degree. This hypothesis is consistent with Bandura's statement that "the relative influences exerted by these interdependent factors differ in various settings and for different behaviors. There are times when environmental factors exercise powerful constraints on behavior, and other times when personal factors are the overriding regulators of the course of environmental events" (1977, p. 10). Under some circumstances only two of these factors are reciprocally interactive to a meaningful degree, and it is possible for one factor to have little causal connection to either of the other two. This hypothesis is schematized in Figure 1. Bandura has described at length the reciprocal determination of B, E, and P, and I previously provided a brief illustration in the case of disruptive classroom behavior. The central part of the schematic, then, is comparatively well explained, but the other sections require elaboration.

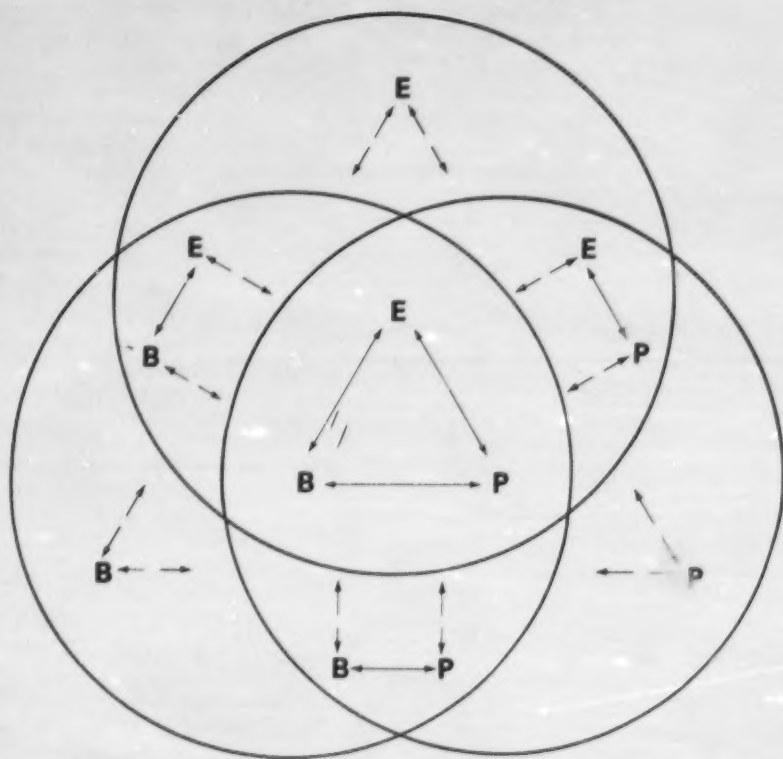


Figure 1. Schematic representation of relationships among behavior (B), environment (E), and cognition (person variables: P) in development.

Beginning with the outermost areas of the schematic, the hypothesis is that some behavior has little effect on the environment or cognition and is influenced significantly by neither. (Weak or insignificant causal relationships are indicated by dashed lines.) Consider the case of the ordinary reflexive eye blink or a mild form of self-stimulation such as pencil twirling or nose rubbing of which the individual is unaware and which does not result in any significant alteration of the environment. Some cognitive activities, such as normal daydreaming, do not noticeably alter the environment, nor do they instigate behavior. It is relatively easy to see that parts of the objective environment sometimes have no measurable bearing on behavior or the cognitive activity of an individual. Of course, it can be argued that every behavior occurs in an environment, that all cognitions represent covert behavior, that the totality of the environment determines perceptions and behavior, and so on. These arguments may be important in philosophical discourse, but I think they are specious in the context of a workable model of development. Furthermore, I am not suggesting that B,

E, and P *do* exist in complete isolation in some ultimate philosophical sense any more than I am suggesting that any one of the three is totally unrelated to anatomical and physiological factors. I am merely suggesting that for practical considerations in understanding and intervening in behavioral development one can assume that B, E, and P can at times be independent of each other.

In some cases, only two of the three factors are interactive or reciprocally determined to a significant degree (as represented by the $E \leftrightarrow B$, $B \leftrightarrow P$, and $E \leftrightarrow P$ areas in Figure 1). Environmental events and behaviors may be reciprocally influenced without much involvement of cognitive variables. This is, of course, a central hypothesis in the radical behaviorist schema. I am suggesting here that such a two-way interaction might usefully be made explicit in Bandura's social learning model to account for subliminal conditioning, automatized sequences of behavior, or other instances in which cognitions play extremely little or no part in behavioral responses to stimuli and associated changes in the environment. Furthermore, there are cases in which behavior and cognitive processes exert reciprocal influence in the absence of associated environmental response. Persons having hallucinations or engaged in imaginative play, for example, may engage in responses which they perceive as altering an imaginal environmental referent and setting the occasion for a subsequent response although no objective environmental event or alteration occurred. Likewise, fearful individuals may persist in avoidance responses which they believe to be necessary or effective in warding off pain or disaster, although their performance of those responses is not contingent on any environmental event and does not alter the environment. Finally, cognitive and environmental determinants may be operative without overt responses being involved, as when persons become aware of events but do not act on their knowledge or when they symbolically manipulate information prior to performance. Environmental events not only influence cognitions but, as Bandura points out, "Cognitive factors partly determine which external events will be observed, how they will be perceived, whether they have any lasting effects, what valence and efficacy they have, and how the information they convey will be organized for future use" (1978, p. 345).

It would be an error to assume that B, E, and P represent phenomena with crisp boundaries and that are present or absent without gradation. "Awareness," as Bandura notes, "is not an all-or-none phenomenon" (1977, p. 20). A person's own behavior is part of that individual's environment. Environment can be defined with an extremely wide range of boundaries. Thus the schematic offered in Figure 1 is not a completely satisfactory representation of the conceptual model, nor do the foregoing descriptions of single- and multiple-component reciprocal determinism do complete justice to reality as it is envisioned by social learning theory. Nevertheless, the schematic and the descriptions are close enough analogues to the theoretical notions to be of value in conceptualizing the phenomena in which we are interested. Probably it would be helpful to imagine Figure 1 as three fuzzy balls that can be varied in relative size, density, and degree of intersection. That visuo-spatial model would more closely ap-

proximate the conceptualization of normal and exceptional development I have in mind.

Hypothesis 2. Behavior, environment, and cognitive activity increase in range and complexity from birth to maturity. A maturing individual exhibits an increasingly complex and varied behavioral repertoire, comes into contact with increasingly varied and complex environments, and acquires increasingly complex and varied cognitions. Thus, the three spheres depicted in Figure 1 could be thought of as expanding or contracting in size or increasing and decreasing in internal differentiation or complexity corresponding to developmental changes.

Hypothesis 3. Behavior, environment, and cognitive activity are increasingly reciprocally determined from birth to maturity. Maturing children are increasingly able to use cognitions to select and interpret environmental stimuli, to guide and evaluate their behavioral performances, and to shape and respond appropriately to their environments. Thus, the spheres depicted in Figure 1 could be thought of as more closely approximating unity and moving toward disunity with changes in developmental status.

Partial support for this hypothesis is found in research reviewed by Mischel (1973). He noted that:

Whereas discriminative facility is highly functional (Gibson, 1969) diminished sensitivity to changing consequences (i.e., indiscriminate responding) may be a hallmark of an organism coping ineffectively. In fact, indiscriminate responding (i.e., "consistent" behavior across situations) tends to be displayed more by maladaptive, severely disturbed, or less mature persons than by well-functioning ones (Moos, 1968). For example, on the basis of their studies of hyperaggressive children undergoing therapeutic treatment, Ransh, Dittman, and Taylor (1959) reported: "there appears to be a trend for social behavior to become more related to situational influences with ego development . . . the children seem to have gained in the ability to discriminate between different situations [p. 368]." (p. 258)

Mischel goes on to point out that even psychotic children are not entirely unable to discriminate among situations. However, such children are obviously less responsive to most environmental changes than are normal children.

Hypothesis 4. Exceptional development may involve a difference from the expected degree of differentiation and complexity in one or more of the spheres, E, B, and P, and/or a difference in the expected degree of reciprocal determinism among the three factors for an individual of given age. That is, exceptionality may be defined by an impoverished or a superior behavioral repertoire, cognitive ability, or environmental circumstance. It may also be defined as failure of cognitive, behavioral, or environmental characteristics to exert age-appropriate reciprocal influence in the face of adequate environmental circumstances, behavioral repertoires, and cognitions or greater than expected reciprocal influence among the three factors for an individual of given age. Differentiation and complexity in each of the three spheres are positively but not perfectly correlated with degree of reciprocal determinism among the three.

Hypothesis 5. For purposes of assessment and intervention one must specify the particular behaviors, environmental variables, and cognitive activities and the degree of reciprocal influence among these factors that are discrepant from expectations. Expectations for behavioral, cognitive, and environmental variables and for reciprocal influence among them are determined by sociocultural standards.

Hypothesis 6. Environmental variables are the only avenue of direct intervention in attempts to alter level of development, except to the extent that development or intervention is self-directed.

IMPLICATIONS FOR ASSESSMENT AND CLASSIFICATION

Behavioral assessment has recently received increased attention as a problem for clinicians (see Ciminero, Calhoun, & Adams, 1977; Ciminero & Drabman, 1977). Such assessment emphasizes careful description of the problem, selection of target behaviors for modification, and evaluation of behavioral outcome. Ideally, behavioral assessment includes not only measurement of overt motor responses but verbal-cognitive and psychophysiological measures as well (Ciminero & Drabman, 1977). In many behavioral analyses, attention is given to functional relationships among antecedent conditions in the environment, the target response, consequences, and contingencies governing the application of consequences. A primary implication of the conceptualization I have sketched is that greater effort should be expended to assess $B \leftrightarrow P$ and $P \leftrightarrow E$ relationships than has been given in typical behavioral analyses in the past. That is, we need to pay more attention to finding out what children think; specifically, how what they think is related to their behavior and environment. Assessment of verbal-cognitive skills has typically been accomplished by means of standardized tests, particularly intelligence and achievement tests. We need to find ways of assessing how children use their cognitive skills in a variety of situations, particularly what they think about why they behave the way they do and how their behavior influences events. Measurement of children's causal attributions, for example, may be valuable in predicting the outcome of particular types of interventions (cf. Bugental, Whalen, & Henker, 1977). Unfortunately, much of the research on causal attributions purports to measure a pervasive dispositional trait (e.g., Ames, 1978). If assessment of the role of cognitions is to be of maximum value in understanding and changing behavior, then ways must be found to tap what children think about specific $B \leftrightarrow E$ influences in specific settings. More situation-specific assessment will likely require the development of new interview techniques coupled with systematic behavioral observation.

A second implication for assessment is that we need to find ways of scaling developmental levels of B, P, and E and levels of their reciprocal influence. Here it becomes obvious that behavioral assessment strategies are still very crude. Aside from the norms of standardized tests and a few developmental scales designed for use primarily with infants and young children, there are only sketchy guidelines based on a little empirical data for assessing cognitive and behavioral levels of development. There is not even consensus regarding what constitutes an impoverished environment

and what defines environmental advantage, except in the most extreme cases. And assessment of the level of reciprocal determinism among B, P, and E is at this time only a matter of clinical intuition. Intuition does not mean random guesswork. One can get some idea of the relationships among B, E, and P by modulating the environment, observing behavioral outcomes, and probing cognitive activity that follows. Clinical intuition is based on experience and understanding of how a self-system works in reciprocal determinism (see Mischel, 1973).

Although new techniques need to be devised, it may be worth noting some comments of Ciminero and Drabman:

It is difficult to imagine an assessment situation in which clinical judgment plays no role. Assessment techniques and the resulting data are simply tools used in a decision making process. For the behavioral assessor, the decisions to be made are related to various aspects of treatment . . . As more and more data become available, we will be able to rely more on empirically derived "rules" and less on clinical impression for making treatment decisions. However, some clinical judgment will always be required (1977, pp. 76-77).

The unreliability of current "diagnostic" categories and the little value they have in selecting intervention strategies has been commented on earlier in this paper and in many other sources. The conceptualization I have suggested implies that exceptionality should be classified according to behaviors, cognitions, environments, and reciprocal influences. A new classification scheme is beyond the scope of this paper, but it is possible to mention some types of exceptionality that fit into the schematic shown in Figure 1. For example, impulsive responding without consideration of alternatives could be seen as fitting the area labeled $B \leftrightarrow E$. Here certain setting events or stimuli evoke a response with little or no thought of response options and the individual does not comprehend how s/he influences the environment to produce negative consequences. Such impulsive responding tends to become a self-sustaining, maladaptive set of behavior-environment reciprocal influences. The area of Figure 1 labeled $P \leftrightarrow E$ may be thought of as including phobic states in which adaptive behavioral repertoires are never practiced. Here the individual's cognitions are determined by certain environmental circumstances and cognitive processes determine what environmental stimuli are responded to, but neither cognitions nor environmental events are involved with appropriate performance. Because appropriate responses do not occur, cognitions and environmental events are left in a two-way interaction which exacerbates "neurotic" withdrawal or inhibition. In the area labeled $B \leftrightarrow P$ one might locate what have traditionally been called "psychotic" reactions. Here behavior and ideas are caught up in reciprocal influence with little or no influence over either being exerted by the environment. Finally, one might consider the example of delinquent behavior in an environment where intelligent delinquency is rewarded or even necessary for survival. Such exceptionality might be considered to fit the central area of Figure 1. That is, by standards adopted by the larger society, the individual's environment, behavior, and cognitions are undesirable. Yet the individual's behavior is responsive to

and clearly shapes the environment, and the individual's cognitive activity is in harmony with behavioral and environmental realities.

While there are many details to work out, it seems a reasonable assumption that assessment and classification could be accomplished within the conceptual system I have suggested. The advantages of the suggested conceptualization over those currently employed include the possibility of devising classifications that are empirically derived and related to intervention strategies.

IMPLICATIONS FOR INTERVENTION

As mentioned previously, intervention (unless it is self-directed) is restricted to environmental manipulations. Interventions based on a psychodynamic model have concentrated almost exclusively on environmental manipulations such as interviews that have had as their primary purpose changes in cognitions. Behavioral change has been relegated to a secondary, sometimes trivial, outcome. In contrast, interventions based on a behavioral model have concentrated almost exclusively on manipulating consequences with the purpose of changing specific overt responses. Cognitive changes have been assigned a secondary status or been defined as epiphenomena. The conceptualization I have suggested implies a concern for both behavioral and cognitive changes in response to environmental alterations.

Lest I be misunderstood, I want to reiterate that direct observation and measurement are indispensable tools in a social learning analysis and in evaluation of the interventions I am suggesting. Cognitive activity can not be measured directly but must be inferred from overt responses, including verbal behavior. Consequently, measurement of cognition will likely always be less reliable and more suspect than measurement of overt behavior and environmental events. Furthermore, claims that significant cognitive changes have occurred in the face of unaltered overt behavior are not likely to be convincing demonstrations of effective intervention.

The schematic shown in Figure 1 and my previous discussion of it suggest that intervention may have somewhat different aims depending on the nature of the exceptionality. For example, the environment typically is enriched or expanded not just to bring it into line with developmental expectations but also to encourage development in cognitive and behavioral repertoires. In some cases, such as those involving psychotic behavior, the primary purpose may be to make the environment so intrusive that $B \leftrightarrow P$ interactions must operate less autonomously. In some cases of neurotic behavior the first aim may be to arrange an environment that will induce the missing behavioral repertoire, perhaps by introducing feared stimuli gradually and obtaining approach responses at each step. The major purpose of intervention with children who behave impulsively may be to induce helpful cognitions about their performances. These varying purposes of intervention should be thought of as relative emphases, not exclusive aims. As Bandura (1977, 1978) has made clear in his discussion of social learning and reciprocal determinism, effective intervention alters environment, behavior, and cognition.

FUTURE DIRECTIONS

I have avoided trying to offer a new definition of behavior disorders or emotional disturbance. I have done so because I think that in the future we might profitably stop thinking of traditional special education categories and, instead, think of exceptionality as differences along relevant dimensions of human development. Social learning theory provides, I believe, a particularly useful way of looking at exceptionality. I hope that future years will see us giving much more attention to defining how the reciprocal influences of people's behavior, thinking, and environment goes awry and to discovering how to set them right. To do this we will have to free ourselves from some of our history without forgetting it. That is, without forgetting how we arrived where we are today, we will have to free ourselves from the tradition of medical authority in defining behavior as illness. And we will have to go far beyond what special educators have offered as the defining characteristics of the children we have come to call "emotionally disturbed" — that their behavior is simply discordant with a social system. We will have to fight against both the harsh condemnation of children as rebels and the sentimental denial that children own any part of the problem.

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AUTISM: SYMPTOMS IN SEARCH OF A SYNDROME

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Let me state at the onset that autism, as a clinical syndrome, does exist. What does not exist is agreement on which behaviors constitute that syndrome. Soon after Kanner (1943) published his original description of autistic children, opinion differed as to what was a "truly autistic child." The difficulty lies not so much in Kanner's description of the syndrome, but rather in the application of that description to specific children. Disputes of what signifies "failure to relate," or how one determines if a child has an "obsession for sameness," immediately arise. Results of research, which should shed light on which characteristics discriminate autistic children from other children, are conflicting. This is true largely because the criteria used to determine the populations studied have been loosely applied. Efforts to search for specific etiologies and underlying psychological and physical traits have produced a plethora of theories. The "causes" of autism range from failure to form a symbiotic relationship between the mother and child to the presence or absence of certain chemicals or neurotransmitters in the body. Claims of which characteristic, or group of characteristics, determines autism abound. The questions facing education are whether or not it is possible to identify an autistic child, and whether separating that child into a distinct category of handicap will greatly enhance his/her educational experience.

In order to answer these questions, it is necessary to trace the history of the label of autism, and to decipher the research to date to determine if a reasonable educational strategy can be derived from the present knowledge. This search must begin with Kanner.

KANNER'S SYNDROME

Most writers in the area of autism begin their discussions with reference to Kanner's (1943) detailed description of autism. His elaborate work is used as the basis for a variety of claims and counterclaims. Kanner's work is significant because, among other things, it set the stage for all the discussions that were to follow. It includes specific behavioral descriptions, indications of possible underlying psychological traits, postulations as to the motivations of the children, and references to possible etiologies and contributing factors. This work, then, became the stimulus for all subsequent investigations. Each individual or group of individuals selected whatever part of Kanner's description they thought salient and then applied it to the children they were serving. Their choice was probably predicated more on their own particular biases and training than on the

empirical evidence available. The result of this selective filter was that most groups that were studying autistic children, and then reporting their findings, were working with different children. A more detailed look at Kanner's points will illustrate the how this could happen.

The first major characteristic that Kanner described was the child's inability to relate in an ordinary way to people and situations from the beginning of life. Kanner defines this inability as an autistic aloneness, differing from the withdrawal commonly seen in schizophrenics. "There is from the start an extreme autistic aloneness that, whenever possible, disregards, ignores, shuts out anything that comes to the child from the outside" (Kanner, 1943, p. 242). Physical contact and noise is either ignored or "resented painfully." These children also fail to assume the anticipatory posture that is common in young infants (Gesell, 1928).

Kanner's description of inability to relate, is susceptible to a variety of interpretations. The notion that the inability has to be present at birth is often disputed. Some writers argue convincingly that the age of onset can be reliably set at less than 30 months, and quite often it is present at birth (Hanson & Gottesman, 1976; Rutter, 1967, 1978a). There are several other writers who argue that autism is an early onset of schizophrenia and therefore discount the 30 month requirement (Fish, 1975). Bettelheim (1967) and others suggest that autism is a product of a deviant parent child relationship and can occur at any stage of development.

Kanner also suggests that the aloneness experienced by these children is different from that of the schizophrenic child. He argues that the aloneness is a failure to acquire a relationship, rather than a withdrawal from a relationship that has already been formed. The choice of "autistic child" as a term to describe these children has caused confusion between the children Kanner saw and those described by Bleuler (1950). Bleuler used the term autistic to describe the withdrawn state of schizophrenic patients. In his term, however, he referred to both a withdrawal from an existing relationship as well as a state that was full of fantasy and delusions. Nonetheless, several writers have suggested that the autistic child is withdrawing from a hateful or dangerous world in which he finds himself/herself powerless to do anything else (Scarvis & Garcia, 1967; Reiser, 1963; Rutter, 1971; Szurek & Berlin, 1973; Tustin, 1972).

Even Kanner himself was unable to provide a functional description of inability to relate in spite of several attempts (Eisenberg & Kanner, 1956; Kanner, 1946, 1957, 1971; Kanner, Rodriguez, & Ashenden, 1972). His attempts to reduce his description to a few critical variables that signified autism was taken by others to be license to pick and choose the variables that they felt fit their particular theory.

A second major characteristic of autistic children according to Kanner was that these children were unable to develop functional language. Many of the children were mute, but those that could speak used language as a game or form of stimulation. The linguistic intent of their speech was not evident. Some of the examples given by Kanner to demonstrate this quality were the continual use of immediate or delayed echolalia, the presence of pronominal reversals, the use of questions as a signifier of assent, and the

uncanny ability to repeat sentences, rhymes, or other complex sentences over and over again.

These children demonstrated a severe language deficit, even though they could repeat sentences that appeared to be precocious at first hearing. Many of the parents reported a linguistic superiority in the early years that became the immediate or delayed echolalia of the children Kanner saw.

This consistent pattern of language problems has led many investigators to postulate various language and/or cognitive disorders as the main cause of autism. There are three main views of the role of language in autism. Some investigators consider language as the major deficit that accounts for all the other behavioral symptoms (e.g., Churchill, 1978a, 1978b). A second group postulates that the language deficit seen in autistic children is the product of some other characteristic (e.g., Richer, 1978). A third explanation of the language deficit is that it is, like all of the other characteristics, the result of an organic dysfunction or damage to the perceptual system (e.g., Menyuk, 1975; Ornitz, 1978). Thus the role of language functioning in autistic children is unclear. Most investigators will agree that a language deficit is a necessary condition for autism. The dispute seems to be whether or not it is a sufficient condition as well. Bartak, Rutter, and Cox's (1977) study of aphasic and autistic children indicates that the presence of a deficit alone is not sufficient grounds for a diagnosis of autism. A more detailed description of language deficits such as those of Churchill (1978a) or Menyuk (1978) may, however, differentiate a specific deficit that is indicative of an autistic syndrome.

The third major characteristic of autistic children was what Kanner called an . . . "anxiously obsessive desire for the maintenance to sameness that nobody but the child himself may disrupt on rare occasions" (Kanner, 1943, p. 245). This might take the form of an adherence to a particular walking pattern or a special arrangement of the furniture or toys in a room. It might also be a monotonous movement or repetition of noises. Some children become terribly upset when something is broken or moved; others can play with the same toy in the same manner for hours.

A careful reading of Kanner's descriptions of this phenomenon indicates that he was describing a child who would go to great lengths to preserve the environment that surrounded him, and only change it when and how he alone wanted it changed. The frequent tantrums that were reported any time an outsider tried to rearrange or clean up a room, and the consistent hyperactivity that was present when something was lost or broken led one to believe that these children had formed specific stimulus sets that they desired to maintain.

One of the behaviors that Kanner used to illustrate sameness was the continuous or monotonous repetition of movement or sounds. These behaviors have become known as self-stimulatory behavior. The term self-stimulation obviously indicates the suspected reason for the behavior. Although there are several studies that have demonstrated the effects of decreasing self-stimulation, and other studies that consistently report self-stimulation as an indication of autism, no clear evidence exists that demonstrates the cause or effect of this behavior on the individual child. In

spite of the fact that self-stimulation is evident in other handicapped children (e.g., the severely retarded and deaf-blind), it is frequently used as the only evidence of "insistence on sameness" (e.g., Wing, 1978). The use of this single behavior does not seem to be in keeping with the phenomenon that Kanner described. It would seem to be more prudent to report a description of the specific rituals that are observed in the children rather than applying the label of self-stimulation.

Kanner completed his discussion of autistic children with a few speculations. He had noticed that the majority of the children he had seen had parents who were of above average intelligence and were highly educated. He described many of them as cold, insensitive, and with limited genuine interest in people. He also noticed that the children had good physiognomies, and possessed good cognitive potential. The implications of these findings have been debated since Kanner first proposed them. Turning to the influence of parenting first, Cantwell, Baker, and Rutter (1978) have reviewed the literature on several of the family factors that might effect autism. They suggest that psychogenic influences could operate in several different ways. First, some varieties of autism could be solely due to psychogenic factors (e.g., Goldfarb, 1961). They cited O'Gorman's (1970) postulation as a second possible influence of psychogenic factors. In this theory, a biological factor was a necessary, but not sufficient factor. A psychogenic stress was also necessary for autism to appear. A third possibility was that the children were biologically damaged in such a way that they were liable to family damage that was not hazardous to the other children (e.g., Tinbergen & Tinbergen, 1972). A final explanation (Cantwell et al., 1978) was that psychogenic factors have no part in the cause of autism, but are still determinants of prognosis and the course of development of the child. After carefully reviewing the studies that bear on each of these explanations, Cantwell and his colleagues concluded that only the fourth explanation has any merit.

It is true that a higher percentage of the parents of autistic children reported both here and in Europe are in the upper classes and have a higher than average IQ score. Autism is, however, found in all classes and all levels of intelligence (Cantwell et al. 1978). There is no doubt that the patients that Kanner saw were definitely better off and more intelligent than the normal population. This finding, coupled with the good looks of the children may account for Kanner's speculation that autistic children possess good cognitive potential. The evidence reported since that time does not support this view (Rutter, 1978a; Wing, 1976). A more likely explanation of the findings are that Kanner noticed the intelligence of the parents, and combined that with the elaborate ecolalia and ritualistic patterns of these children to formulate the opinion that these were the signs of intellectual potential. Churchill (1978a) Menyuk (1978) and Hermelin (1978) have all offered evidence that the current deviant functioning of these children is a more correct estimate of potential functioning than is the hypotheses of withheld intellect. Axline (1964) and Bettelheim (1967), however, report case studies that they feel refute this view.

What then was Kanner's legacy? First, he presented the most detailed description of autistic children in the literature to date. (Lovaas' work also

added much to the understanding of the complex of symptoms that make up autism. (See Lovaas & Newsom, 1976.) As Rutter (1978a) points out the application of this description is often very difficult, and most individuals have resorted to shorthand descriptions of the major characteristics. Although this departure from the elaborate description was necessary, the translation has led to a variety of interpretations.

Kanner also suggested the possible psychological traits that might account for the disorder. His emphasis on language, social interaction, and ritualistic behaviors forms the basis for most definitions to date. The differences arise from the functional definitions of these characteristics or the role each plays in the cause or symptoms of the disorder, but no major theorist disagrees with the fact that they are the critical features of the syndrome.

Kanner also suggested the motivations of some of the behaviors that he saw, and in turn how some of these might be caused. Most of these postulations have yet to be reliably demonstrated. Kanner's training bias may account for most of his interpretations. Each of the propositions needed to be investigated, and the studies developed to do that certainly added to our knowledge of autism. It may be argued that the investigation of the disorder would have been speeded up had Kanner chosen to limit himself to description, and had not alluded to etiologies. Hanson and Gottesman (1976) argue cogently for the adoption of conservative diagnostic attitudes. Their concern is that the identification of false positives will erode the value of potentially useful constructs. An equally strong argument can be made for the resistance to formulate theories prematurely.

OTHER ATTEMPTS AT DEFINITIONS AND THEORIES

The work following Kanner attempted either to develop a reliable shortened version of Kanner's description, or to prove which characteristic or group of characteristics is the critical one necessary to discriminate autistic children from other children.

As different investigators struggled with the problem of isolating which behavioral characteristics could be used reliably to discriminate autistic children, many unitary theories were developed. It is beyond the scope of this paper to investigate each separately, but a list of the more prominent ones will indicate the hazards of premature theory building.

A partial list of the unitary theories that have appeared in the literature over the past two decades includes etiologies based upon chronic overarousal (Hutt, Hutt, Lee & Ounstead, 1964), chronic underarousal (Rimland, 1964), lack of adequate nutrients (Rimland, 1973), inadequate vestibular modulation of perception and motility (Ornitz, 1978), inadequate affection and acceptance by the child's mother (Bettelheim, 1967) and the functional impairment in the decoding of the affective components of sensory experience (DesLauriers & Carlson, 1969, 1978). Other writers have postulated that autistic symptoms are a result of a severe language deficit (Churchill, 1978a), a communication deficit (Richer, 1978), a generalized cognitive deficit (Rutter, 1978; Wing, 1978) or the inability to analyze and categorize linguistic and nonlinguistic data (Menyuk, 1978). Still others suggest emotional detachment by the mother (Despert, 1951), specific

traumatic events in the life of the child (Putnam, 1955; Rank, 1949, 1955), severe internalized conflicts of the parents (Szurek, 1956; Boatman & Szurek, 1960), parental depression (Reiser, 1963; Rutter, 1971; Szurek & Berlin, 1973; Tustin, 1972; Sarvis & Garcia, 1967), and parental perplexity (Meyers & Goldfarb, 1961) as the major cause of autism. The list goes on and on.

It is apparent that consensus as to the nature of autism is probably impossible at this time. There are no clear sets of evidence that indicate a single cause or a group of causes. Chess (1972) summarizes the problem this way. Diverse behaviors may in fact have the same etiology (e.g., syphilis or tuberculosis), or the same behavior may be the result of diverse etiologies (e.g., arthritis or anemia). There will be no improvement in the dilemma of what is autism until the shifting by investigators from symptom to cause and then from cause to another symptom ceases.

MULTIAXIAL APPROACHES

Creak (1964) and her colleagues developed a group of characteristics that they published under the name of the Working Party on Schizophrenia Syndrome in Childhood. The nine points were an expansion of Kanner's points into broad headings that included all the main clinical features that were present in both autistic children and schizophrenic children. The result of this effort was to produce a diagnostic criteria that was too broad. Far too many children were included in the descriptions, and once again the risk of identifying a high number of false positives was present.

Another major attempt to classify the symptoms of autism into a workable hierarchy was that of the World Health Organization (Rutter, 1969; Tarjan, 1972). In a symposium called to study the possibility of identifying autism, a group of investigators decided upon a classification system that would include each of the major areas of concern in order of their importance to autism. The system has four levels: (1) clinical psychiatric, (2) intellectual functioning, (3) associated or etiological biological factors, and (4) associated or etiological psychosocial factors. This paradigm includes all the divergent positions, and allows each investigator to describe his/her subject in terms of more than one variable. Thus a particular study that focuses on the purine level can still report the description of the specific characteristics of each child, the IQ level, the biological factors (which in this case are the main result of the study), and lastly the psychosocial factors (if any).

Although heralded as a major breakthrough at the time (Rutter, 1972), the scheme is probably more a reflection of the political realities of an international symposium than the development of a useful tool. Rutter (1969, 1972) recognized the enormous problems inherent in designing the subclassifications of just the first level. A task that he was unable to complete. This does not speak well for the development of all four levels. This is not to imply that such a task is not a worthy one, nor that it is not necessary to impose some structure on the organization of the divergent data presented about autistic children. The WHO classification system,

however, cannot provide a strategy for furthering the investigation into the many facets of autism. It can only serve as a receptacle for those findings, a filing cabinet if you will. Before suggesting a solution to the problem of defining autism, it is necessary to consider the plausibility of an educational definition.

EDUCATIONAL DEFINITIONS

An educational definition is useful if it will identify a population of children that can be helped by a particular set of educational strategies. The definitions of autism that have been suggested so far do not identify a particular set of children that can be uniquely helped. All of the strategies that have been demonstrated to be effective so far work equally well with a variety of other children (e.g., imitation learning or behavior modification procedures). Thus, there is no sound reason to separate autistic children solely based upon an educational criteria at this time.

There is, however, reason to suggest that nearly all autistic children require a systematic educational program and that the teacher-pupil ratio must be low in order to help these children realize their full potential. Most published reports of programs that have shown successful gains in autistic children have used a small teacher-pupil ratio (e.g., one-to-one or one-to-two). The ability of these children to profit from large group instruction has not been reliably demonstrated. (Creedon's [1973] language study is one notable exception.) In fact, research into what variables affect the success or failure of autistic children to profit from groups has yet to be done. (Some preliminary studies are currently underway at the University of Washington Experimental Education Unit.)

Although very few, if any, unique techniques have been developed, most researchers in the field of autism would conclude that the search for such techniques is just beginning. So far, the evidence indicates that some form of behavioral intervention is necessary in order to show consistent gains (Lovaas, Simmons, Koegel, & Stevens, 1973; Churchill, 1978a). The behavioral strategies developed to date are not exclusive, however. They apply equally well to children who are severely and profoundly retarded, mildly retarded, learning disabled, and to normal children as well. Continuing our present course of grouping dissimilar children under the label of autism impedes the progress toward discovering other techniques that might be unique (e.g., within stimulus prompts, Schreibman, 1975; Schover & Newsom, 1976; or instructional formats, Neel & Billingsley, 1979). A consensus as to what children should be considered autistic is necessary to enhance the future possibilities of discovering differences or developing unique educational interventions for autistic children. The following strategy is offered as an initial step in that direction.

DEFINITION STRATEGY

Wing (1978) stated that at the current level of understanding the only reasonable definition of autism should be a behavioral one. I quite agree. Rutter (1978a) lists four elements which should be included in any definition of autism. Three of the elements are broad groups of symptoms

that are found in all (or almost all) children diagnosed as autistic. These include a profound and general failure to develop social relationships, language retardation (with impaired comprehension, echolalia, and pronominal reversal), and ritualistic or compulsive behavior. Rutter also suggests that the age of onset should also be the fourth deciding factor and that given the current evidence (Rutter, 1967; Hanson and Gottesman, 1976) the age should be set at 30 months or before. This plan is, of course, similar to Kanner's original description, but with some major modifications. First, it is limited to description only. Secondly, the characteristics are worded in terms that describe observable facts rather than speculations as to causes or motivations. Lastly, it provides that a cluster of all four characteristics be present before the label of autism can be applied. Although some children who are now being designated autistic will be excluded with the use of this cluster system, it is more likely to prevent the identification of false positives (Hansen and Gottesman, 1976). These four characteristics would then become the umbrella description of autistic children under which all forms of autism could be included. A review of a study by Coleman and her associates (1976) with autistic children will illustrate how such a strategy might work. These researchers identified 78 children from all over the United States using a modified Rutter system. They carefully described each child. Following their investigation, they were able to identify four possible sub-groups of autism from their sample. The four sub-groups were familial autism, purine autism, celiac autism, and "other." This data can then be used to separate populations for further study. The new classifications become autistic with familial link, autistic with purine abnormality, autistic with celiac dysfunction, and autistic with no other discernable features. The autistic part of the label is a statement by the investigators that each child has evidenced all four of the characteristics suggested by Rutter. The second part of the label signified that they also possess one other characteristic that may have import to either further research or treatment.

This system would allow various researchers and teachers to compare data with the clear understanding that they were in fact talking about similar children. Certainly, there would be some discrepancies that would arise from the vague nature of the behavioral characteristics. These cannot be prevented at the present level of knowledge. They can, however, be controlled by the requirement that every investigator provide a careful description of the behaviors that were used to make the determination of autism. These problems would be minimal compared to the wide variety of criteria now in use. The adherence to a uniform system would be especially beneficial for research. It would allow further study of specific biological sub-groups rather than study of groups of children who show some of the autistic characteristics. This should help clarify the conflicting results of most biochemical, hematologic, and neuro-psychologic studies of autism. (See Ritvo, Rabin, Yuwiler, Freeman, & Geller, 1978; or DeLong, 1978.) Further studies to investigate the findings of Coleman and associates would be much more definitive if the populations that were compared were identified as autistic with purine disorder (hyperuricosuria), for example. The resulting findings could then be compared since the population studied

would be controlled on the specific variables under consideration. The present practice of lumping a wide variety of autistic and autistic-like children together only clouds the applicability of the findings.

A similar line of logic can be used in terms of educational research. One of the major goals of educational research is to discover specific interventions that will effectively change behavior. It would be very useful to be able to compare published procedures across populations. This is nearly impossible with the present studies. An adherence to the standard method of identification could then greatly assist the efforts of investigators throughout the world. Thus one could develop labels such as autistic, with low IQ score (as measured with a Leiter); autistic, with language generalization problems as demonstrated by a specific language assessment tool (e.g., Churchill's nine-word language), and so forth. Then each child that another investigator identified that had the same characteristics would become a potential replication of previous findings. This approach seems the only logical one until specific organic, psychological and/or behavioral characteristics are identified.

RESEARCH STRATEGIES

The current adherence of a majority of investigators on group research designs is impeding the discovery of the processes of autism and the development of the strategies that will effect the changes desired in these children. Most of the studies in the past have either concentrated upon how autistic children differed from some other population (retarded, normal, aphasic, cerebral palsied), or on how a certain group of "autistic" children have performed on a specific test or set of tasks. Children who have failed to perform, or who have been markedly different than the others have often been excluded from the analysis. The authors will note that this child is unusual or differs in some obscure way, and therefore cannot be included in the analysis because such inclusion would make the results less meaningful. I suggest that it is just this "different" child that we should be most interested in.

A review of the literature on language and language training of autistic children will serve as an illustration. Several studies have investigated the differences between autistic children's language and that of other groups (DeMeyer, 1976; Rutter, 1968, 1978b; Ricks & Wing, 1975; Rutter & Lockyer, 1967; Ornitz, 1973; Churchill, 1972, 1978a; Pronovost, Vakstein & Wakstein, 1966). The results of these studies are summarized by Menyuk (1978) as follows:

... both in comparisons of autistic and dysphasic children and autistic and mentally retarded children, degree of language deficit and/or degree of intellectual retardation as measured on standard tests cannot wholly account for the differences in the communicative behaviors that are observed between these populations. (Menyuk, 1978, p. 107)

In spite of this finding, Menyuk (1978), Rutter (1978b), Hermelin (1976) and Newson and Newson, (1975) and Richer (1978) are continuing to attempt to search for the characteristics that can account for the difference by comparing one group of children with another. This strategy will not

produce the desired result because group strategies rely on pooled commonality rather than individual differences. What is needed are studies that incorporate research designs that highlight the differences between the children.

The reasons for using single subject designs are numerous. First, the state of the art requires that we use a behavioral cluster approach to defining autism. It is all too evident at this point that such a definition will produce a heterogeneous group of children. The utility of group analysis rests in the demonstration that the within group variation is less than the between group variation on the variable studied. With autistic children, the fact that they differ greatly from the normal population in language functioning, for example, is no great discovery. The fact that they differ greatly amongst themselves is of some interest. Unfortunately, the pooling of variance that is required for group analysis minimizes the differences that are present. The discussions of the researchers tend to explain away the differences, or to ignore them in drawing their conclusions. (See Rutter [1978b] or Lovaas, Schreibman, Koegel & Rehm [1971] for examples.) The use of single subject designs would eliminate the loss of valuable information as to how these children differ. It is this "how" question that is the much more interesting one.

A second reason for advocating single subject designs is the matter of control. The use of a control group implies that the group you are using for comparison differs significantly from the experimental group only on the variable that you are investigating. All other differences are to be controlled either by matching or by randomizing the error. These assumptions are fallacious for two reasons. Currently, there are no clear indications as to what variables might affect the performance of autistic children. A brief review of either Coleman et al. (1976) or Churchill (1978a) will show how seemingly similar children are in fact very different. Their reliance on reporting the data of individual children has allowed us to discover different sub-populations that may be critical distinctions in the future.

Another reason that control is impossible is that the incidence of autistic children that are available to any researcher is so small. It is unreasonable to assume that the sample chosen would be large enough to allow for randomizing of error. It is reasonably easy to determine groups of normal children, or even other handicapping conditions with a high prevalence, that can be matched with a variety of dissimilar children in order to obtain a sample large enough to meet the research design requirements. If each subject were to serve as its own control, then this would be unnecessary.

Failure of statistical significance to provide reliable information as to effect is a final reason for using single subject designs. Carver (1978) notes that the use of statistical significance has been declining in all fields of research. The trend is toward the use of replication to demonstrate significant effects. The reason for this trend, according to Carver, is that statistical effects are not useful in determining the real effects of a procedure. A look at some of the work in the area of punishment will show how reliance on single subject designs more readily reveals the critical effects of a particular procedure, and also which variables are most important to control to insure success. (See Neel [1978] for a review.) This is not to

argue that there is no use for group designs, quite the contrary. Group comparisons are necessary to identify the major areas of differences between populations that warrant further study. These designs do not, however, lend themselves well to the determination of the exact nature of the differences. The use of single subject designs, with their reliance upon replication, seems more likely to lead us to more plausible explanation of the syndrome of autism.

CONCLUSIONS

The two questions posed at the beginning of this paper were: (1) is it possible to identify autistic children?; and (2) would separating autistic children into a separate category enhance their educational experience? What can be concluded regarding each?

Identification. It is possible to identify the autistic syndrome if the identifiers adhere to broad behavioral categories. The three suggestions by Rutter are recommended as the best. An additional requirement of early onset is also suggested in order to clearly separate autistic children from other forms of mental disorders (e.g., schizophrenia). Certain subsyndromes are beginning to be discussed in the literature. Their usefulness as an educational classification has, so far, not been demonstrated. They should be preserved as potential research populations. There is some indication that some of these sub-syndromes may prove to be educationally relevant.

A strong case can be made for determining intelligence scores of autistic children as a major part of the identifying process. The results of several studies have been found to be markedly different than reported when IQ was taken into account (e.g., Schover & Newsom, 1976). It is suspected that the IQ in autistic children functions in much the same way as in any other group of individuals (Rutter, 1978a) and therefore should be included in determining the possible educational programming for an autistic child.

Autism as a separate category. There is no educational reason to separate an autistic child from other handicapped children. The decision of where to serve such a child should depend on which programs could provide a small teacher-pupil ratio and still adhere to the principle of least restrictive environment.

There is no doubt that autistic children require a very special type of instruction. As mentioned earlier, a behavioral approach utilizing the manipulation of both antecedent and consequent events seems to hold the most promise. Problems in the area of generalizability, stimulus selectivity, and instructional format still remain to be solved. Nevertheless, there is no conclusive evidence to date that supports the notion that a segregated educational program is necessary to educate adequately autistic children.

One final note. The symptoms of autism can now be generally agreed upon. Whether or not they reflect one syndrome or many will have to be determined in the future. This effort will be greatly enhanced by the increased focus on how each of these children differ. Educationally the focus must be on which techniques can be used to enable these children to learn and under what conditions these techniques will be successful. As we search for

successful techniques, educators will also have to stay abreast of the findings in the other areas. For, if we know nothing else, we know that the answer to autism lies in no one domain. Autistic children can only be served through a concerted multi-disciplinary effort.

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